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Journal

The Inaugural General Meeting

The first Inaugural Meeting of a session of the R.I.B.A. since 1938 is an important step in the return to normal peace-time progress. This meeting will take place on Tuesday, 12 November, at 6 p.m., when the new President, Mr. L. H. Keay, O.B.E., will deliver his Inaugural Address. The President will also unveil the portrait of his predecessor, Sir Percy Thomas, which has been painted by Mr. James Gunn. Those who have been privileged to see the portrait say that it is a notable addition to the R.I.B.A. gallery of portraits. Before the War the Inaugural Meeting was a social occasion at which members came to meet their fellow architects and to discuss current topics. It is hoped that members will restart this pleasant custom by attending in large numbers on 12 November. The evening will begin with the serving of refreshments in the Foyer at 5.15 p.m.

The President, in his address, will survey the present position of architecture and of architects in this country and discuss their importance in the development of the nation's life.

Facilities for Ex-Service Students

The R.I.B.A. is very anxious to help a growing number of ex-Service and other students to find temporary employment pending their admission to a full-time course in a school of architecture, most of which have no vacancies until September 1947. The Institute, therefore, invites members, who are in a position to offer such employment for twelve months or so, to notify the Secretary.

It is hoped to start a service which will help both the profession—who, we know, are in need of such juniors for their offices—and students awaiting entrance into the schools.

"Building Now" Exhibition at Leeds

A Leeds correspondent has sent us the following note on the opening of "Building Now" Exhibition at Leeds:—

"When the first Mr. Lewis decided to open a store offering the best possible goods to the people, he evidently had a good idea. As good ideas usually follow each other, Lewis's have just staged in their store at Leeds an exhibition called 'Better Homes,' where tens of thousands of hopeful citizens have for these last few weeks been gazing expectantly at life-size shows of kitchens, cupboards, fireplaces, baths, furniture, and other details of domestic interest. Certainly not the least distinctive or interesting contribution to this show is the R.I.B.A.'s exhibition, 'Building Now.' It could not have been better timed or placed, for there, in a welter of essential bits and pieces, you have quietly demonstrated the architect's function as co-ordinator and creator. As one of the men of Leeds said to me, 'It shows you what can be done with all this stuff.'

"Only one possible criticism can, in my opinion, be made—namely, that in a display of full-size working elements more use

should be made of models and less of drawings and other two-dimensional material. It was a good idea for the architects to go to the people—it is the surest way of bringing the people to the architects."

National Joint Council for the Building Industry

The fact that there had been no strike in the British building industry for the past twenty-five years was celebrated at a dinner at the Dorchester Hotel on 3 October. The National Joint Council for the Building Industry was formed at a time when the industry was torn with strife and when strikes were a matter of almost continuous occurrence. Amid the greatest difficulties, machinery for negotiating wages, hours and conditions had been set up jointly by the employers' federations and the operatives' unions. Under skilled and resolute guidance the Council succeeded not only in bringing peace to the building industry but creating a model for the World of co-operation between capital and labour. It is a matter of great satisfaction to architects that the R.I.B.A. has always extended the use of its premises to the National Joint Council as neutral ground on which the representatives could meet.

This, and much more, was said with justifiable pride at the dinner which was attended by no less than four Cabinet Ministers. The chairman of the National Joint Council, Mr. W. H. Forsdike, in proposing "The Occasion," made tactful reference to the coming discussion in the Council arising from the request by the operatives for an increase in wages of sixpence an hour. The Rt. Hon. Herbert Morrison, M.P., in proposing the toast "The National Joint Council," said he declined to make any comment on forthcoming events and dealt rather with reminiscences of the far-sighted men, and particularly those in the Labour movement, who had made this great work of co-operation possible.

The chairman then presented on behalf of the Council a silver tray to Mr. Richard Coppock, C.B.E. [Hon. A.], National Secretary of the Federation of Building Trades Operatives, as a memento of his great work during the twenty-five years. He, with the late Tom Barron, had been virtually the creators of the operatives' share in this effort. In replying, Mr. Coppock recalled the atmosphere in which the Council had been formed. Happily the days of casual labour and unemployment were past and he made a plea, now that conditions were more secure, for the cultivation of craft pride and skill. The health of the guests was proposed by Mr. W. E. Fishburn, chairman of the National Conciliation Panel and replied to by the Minister of Health, the Rt. Hon. Aneurin Bevan, M.P.

Mr. Bevan said he was watching the proceedings of the National Joint Council with very great interest because he represented the customer. He wished to point out very frankly



International Reunion of Architects

Mr. J. Murray Easton (V.P.), representing the President, welcoming the delegates. Left to right: Pardo Monteiro, Pierre Vago, Auguste Perret, Sir Patrick Abercrombie, Erno Goldfinger (Hon. Sec. of the Conference) and Jules Ghobert

that whatever settlement might be arrived at, building prices must not go higher; whatever modifications were made should be assimilated by higher efficiency and output. There was a dangerous reaction after a war to put sectional interests first. During a war national appeals dominated and there was something of a natural, though regrettable tendency now for each group to consider itself without full regard to national interests. The building industry had everything to gain by co-operation. Before it was a great future and expanding prosperity, provided it exercised self-discipline. He warned his hearers that the Government could not be indifferent to production and costs in the building industry because the industry was not only a reflection of national prosperity but a very powerful contributor to it.

The Rt. Hon. George Tomlinson, M.P., Minister of Works, advocated the research into time and motion of operatives in which the research officers of his Ministry were now engaged. He regretted the tendency to sneer at the scientist. If the scientist could do away with the man carrying bricks on a hod, he was performing a very great service to the industry. The industry itself had not been willing to undertake research. He felt that it was quite right for the Government to do so.

The President, accompanied by the Secretary, attended the dinner, as representing the R.I.B.A.

The New Kalendar

The 1946 Kalendar is now being issued to members. Subscribers and others who want copies should apply early because supplies are limited. The price is 7s. 6d. post free.

"New Homes for Old"—An Exhibition of House Conversion

This exhibition is now open at The Tea Centre, 22 Lower Regent Street, S.W.1. Its main aim is to show how existing houses, roads, plumbing services and shopping areas are already provided in many parts of London and the provinces to meet the pressing claims of families urgently in need of shelter, whereas in the case of new estates, these services have to be installed. The exhibition provokes the question: "Is it not cheaper to provide three or four good flats by the conversion of an existing house than to erect one small 'prefab.'?"

Lord Dudley, chairman of the Central Housing Advisory Committee which appointed the Silkin sub-committee who reported a year ago on "Conversion of Existing Houses," took the chair at the opening of the exhibition on Thursday, 19 September 1946, and warmly commended its purpose. He admitted receiving a shock on examining a display poster bearing a caption, "Houses like this, too large for present-day conditions, can easily be sub-divided." The example chosen was—his own home. The exhibition is open until 9 November.

Journal Publication

We very much regret that many members are receiving their JOURNAL late. This is due entirely to labour difficulties which our printers, in common with many other printing firms, are experiencing at the present time. At the end of 1945 publication was a month late, due largely to a legacy of war-time difficulties. The new editorial staff, which started work on 1 January, gave first priority, among the many improvements envisaged, to publication of the JOURNAL on the correct date. By strenuous efforts this was achieved for the March number and was maintained fairly well for the next three months. Thereafter, in spite of the editorial staff closing for press on the dates agreed with the printers, the dispatch of the printed copies by the printers again became late. This was partly due to shortage of labour at the printers, particularly of female labour in the dispatch department; but difficulties became acute during the last few weeks owing to the ban on overtime by the unions. This resulted in a congestion of work which, in the case of those printing firms who print journals, meant that delay in publication became inevitable. Such printing firms have a precise time schedule designed to keep all their departments fully occupied. When they are working to capacity—as are almost all printers to-day—there is no margin for delays, which consequently become cumulative. The ban on overtime has now been lifted but late publication is likely to continue for the time being until the existing congestion of work is overtaken.

Mackintosh Museum

Mr. Thomas Howarth [A.], whose article on the house of Charles Rennie Mackintosh was published in the September JOURNAL, tells us that an important step towards the commemoration of the work of Mackintosh has been taken by the setting aside of a Mackintosh Room in the School of Art at Glasgow. This will contain samples of Mackintosh's original furnishings, including beds and other domestic designs, as well as a selection of his landscapes and flower paintings, to serve as a small permanent memorial within the larger one which is the building itself. Mr. Howarth would like to hear from architects and others of the existence of furniture and drawings by Mackintosh which could be placed in the Museum, on extended loan or donated.

"Britain Can Make It" Exhibition Opened

Their Majesties the King and Queen paid the Council of Industrial Design a royal compliment by breaking their Decade holiday to open the "Britain Can Make It" Exhibition at the Victoria and Albert Museum on Tuesday, 24 September.

The exhibition's brilliant settings, 15 great display halls and 24 fully furnished rooms, were mentioned in the editorial columns of the R.I.B.A. August JOURNAL. We saw no revolutionary novelties in design of rooms, comparatively little experiment in domestic lighting and most of the heating units are already well known. But the expert's touch can be seen in the selection of colour for fabric, taste in wall decoration and in the layout and utilization of space. These, it was felt, represent the height of luxury in one of London's best shows which, indeed, fully reveals the skill of British industrial designers.

The consulting architect is Mr. Basil Spence [A.].

R.I.B.A. Diary

Wed., 6 Nov. 5.45 p.m. A.S.B. Lecture. *New Light in Old Buildings*, S. Anderson and E. H. Penwarden. Joint meeting with Illuminating Engineering Society. Refreshments at 5 p.m.

Tues., 12 Nov. 6 p.m. Inaugural General Meeting. Address by the President. Refreshments at 5.15 p.m.

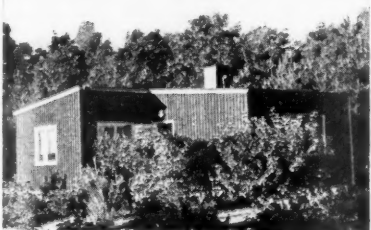
Tues., 26 Nov. 6 p.m. General Meeting. *Aspects of Post-War Building Technique*. Richard Sheppard [F.].

Wed., 4 Dec. 5.45 p.m. A.S.B. Lecture. *Health and Welfare in Factories*. H. G. Maule, Factory Inspectorate Staff.

Tues., 10 Dec. 6 p.m. General Meeting. *Heavenly Mansions. An Interpretation of Gothic*. John Summerson, F.S.A. [A.], Curator, Sir John Soane's Museum.

SWEDISH ARCHITECTURE

PART I. IN 1946



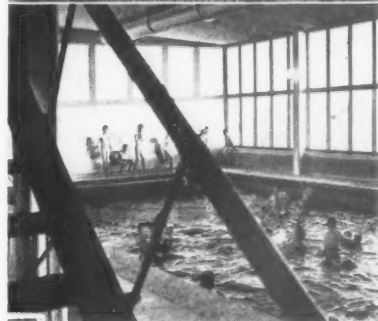
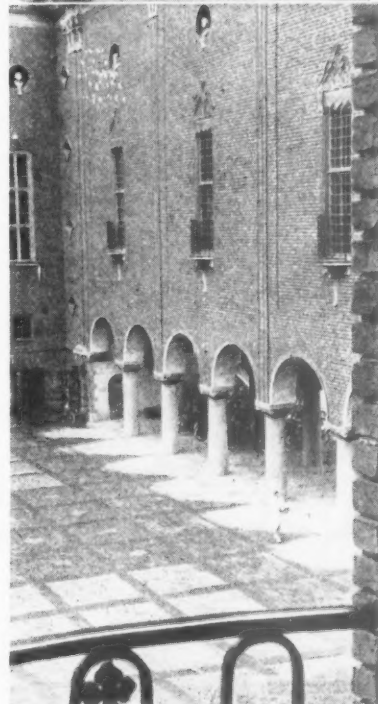
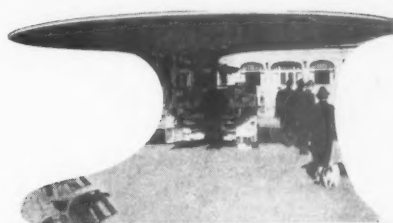
In August a party of British architects, members of the Architectural Association, visited Sweden at the invitation of the Svenska Arkitekters Riksförbund (the Swedish equivalent of the R.I.B.A.). The party included the Editor of the R.I.B.A. JOURNAL.

At one time Swedish architecture served mainly as a source of sketch-book copy for less thoughtful British architects. In the middle of the inter-war period bits of Stockholm Town Hall appeared in numerous competition drawings (mostly unpremiated); the attenuated shadows of a brief Classic epoch, already dying in Sweden, lengthened the columns and thinned the detail in a British architecture which was still firmly bound to the Orders. That period represented a mere copyism no more worthy than was the sedulous reproduction of bits of Gothic detail by our grandfathers.

To-day it is to be hoped that we have got beyond that sort of thing and that we are now capable of and willing to study a foreign architecture fundamentally; to envisage the conditions of race, culture, climate, history, crafts and materials which give it shape and life; to compare those conditions with our own and to see whether similar problems are better solved by architects working under them than by ourselves. It is in the approach to problems that we can best learn from foreign architects—and in this the Swedes have much to teach us. Their approach is fundamentally a simple one; they do not seem to be embarrassed by intellectual or stylistic doubts; they appear able to solve a problem on its own merits.

A casual glance at Swedish architecture is not enough. A personal liking or rejection of an elevation or of a piece of detail; mental dismissal of a piece of planning because it does not suit our preconceived notions or because "the L.C.C. would never allow it"; attempts to use effects of colour and form which, looking superb in the clear, dry and smokeless atmosphere of Stockholm, would be the very reverse in

LEFT, THE COUNTRY. Winter in a mining community. Harvest-time in East Götland. Modern small prefab. RIGHT, THE TOWN. R.C. mushroom shelter, Stureplan, Stockholm. In Stockholm Town Hall. Sports centre at Sandviken ironworks. Bath in Eriksdal elementary school, Stockholm.





ours; such purely superficial contacts will get us nowhere. Therefore having laid down the law on how to look at Swedish architecture—or rather on how not to—we must begin with a brief survey of those fundamental conditions.

Sweden is a large country with a small population. In area it is half as big again as Great Britain and Ireland, yet its population is only from six to seven millions, of whom 35 per cent. live in towns and some six hundred thousand in Stockholm. The south is mainly agricultural, half the population living there in one-fifth of the country. The north is sub-Arctic. Malmö in the south is in the latitude of the Tyne and Stockholm in that of Scapa Flow. Great areas of Sweden are wild country; bear and elk are shot every year within a few miles of Stockholm.

The tail end of the Gulf Stream mitigates but does not (as with us) entirely prevent the seasonal extremes of temperature experienced in the great central land mass of Europe. The backbone of Sweden consists of very ancient primary rocks, predominantly granites and gneiss, which have been worn down and softly rounded by a long-departed ice cap and which are now densely covered with forests of pine, spruce, birch, beech and oak. The south is an exception in being akin to Denmark and consisting of formations from the Triassic, Jurassic and Cretaceous periods, giving good farming land and yielding limestone and sandstone.

After agriculture (which does not concern us here) the natural resources and industries of Sweden are, first, timber and its derivatives such as paper and fib board, then the mining and metallurgy of a very high grade iron and of copper, together with the engineering to which they give birth. Quarrying is of importance in relation to architecture; in addition to granites and limestones, the metamorphosed rocks yield fine marbles, notably the famous "Swedish green." The alluvial deposits from the glaciers and rivers provide brick earths.

The vast number of steeply falling rivers and streams are a source of cheap hydro-electric power which, although Sweden is one of the most intensely electrified countries in the world, are not yet more than one-third utilised. Sweden has no coal deposits and its industries are almost entirely elec-

LEFT, THE PEOPLE. Children's corner of roof garden on H.S.B. flats, Stockholm. A winner in the Flaten games for young people. Gingerbread figures for Christmas. **RIGHT, THE PEOPLE'S BUILDINGS.** New H.S.B. flats, Stockholm. On Vaxholm island. Reimersholme H.S.B. flats, Stockholm. A Stockholm garden city of occupier-erected prefabricated houses.



Oct b

trified, smelting

The conditions reflect a few high-grade steel stores constructed for the purpose of making a clear usual and floors international class fluoroquinolones being an almost window which tions.

Political racy. years limited lished government ours. the Progressive even bment power system owned some enterprise is very ganisation parallel are stri influence there is country similar problem democracy

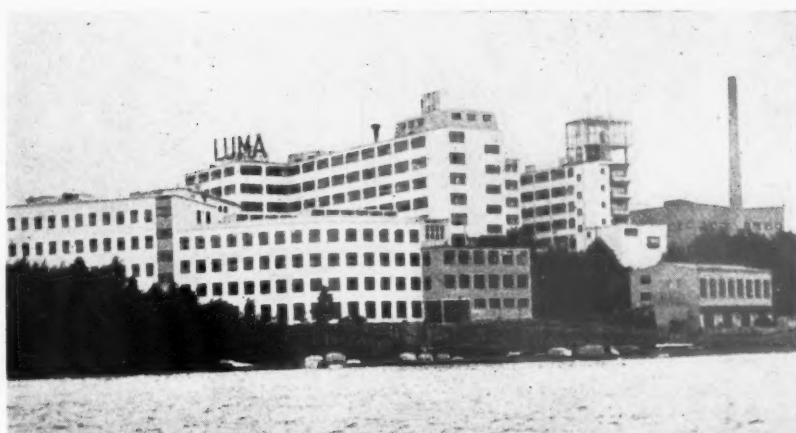
Perhaps wards high average architect system a reflection as movements historic nineteenth century mainly traditional sense of based resultant

trified, though coal is imported for smelting, central heating, etc.

These physical and economic conditions naturally influence and are reflected in the architecture. Here are a few examples. The development of high-grade steels, particularly of stainless steel, has led to abundant use of the latter in fittings such as sinks, counters, door plates and household appliances; the corresponding shortage of low-grade steel prohibits our lavish use of steel framing, all buildings up to six storeys in height being of solid wall construction and higher buildings of reinforced concrete. The fine hardwoods make beautiful furniture, doors and parquet floors. Practically all windows are of softwood (lovely straight-grained clear stuff), steel windows being as unusual as steel-framed buildings. Marbles and polished granites are used for the floors of halls and staircases and for internal window sills, even in working-class flats. The severe winter cold requires all windows to have double glazing. These are rarely opened, ventilation being by controlled inlets. Hence it is an almost universal practice to make each window a large single area of glass, which has no small influence on elevations.

Politically Sweden is an old democracy. The Riksdag or Parliament is 500 years old, the present constitution of limited monarchy having been established in 1809. Its legal system and local government system are closely akin to ours. It enjoys a democratic freedom of the Press. It was noted for its progressive social reforms and welfare work even before its present Labour Government (Social Democratic) came into power in 1920. Parts of the railway system and electric power system are owned by the State, and operated to some extent in competition with private enterprise. The co-operative movement is very strong. Thus its political organisation has long been developing on parallel lines with our own and the two are strikingly similar. So far as political influence on architecture is concerned there is little difference between the two countries. The two systems result in similar building and town planning problems and they are solved by similar democratic methods.

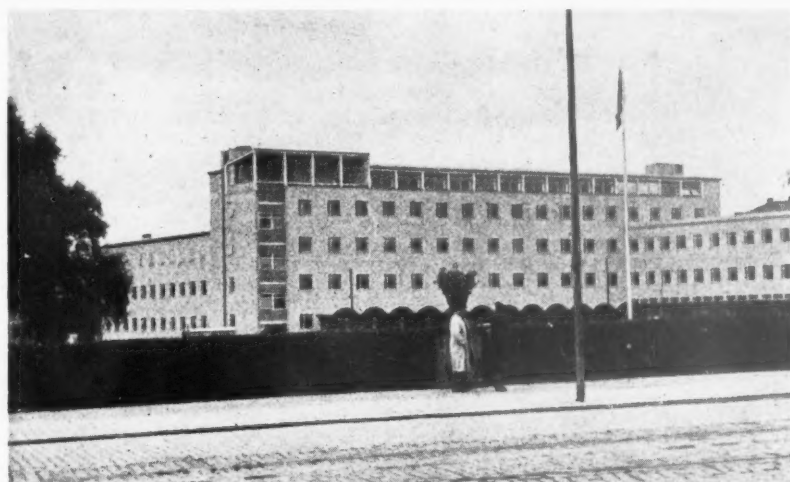
Perhaps the strongest influence towards maintaining the undoubtedly high average level of quality in Swedish architecture is the public educational system; a system which is in itself a reflection of national characteristics as moulded by economic, climatic and historical forces. Until well into the nineteenth century the Swedes were mainly peasant, with all the peasant's traditions of good handicraft and innate sense of design. They missed our coal-based industrial revolution with its resultant debasing of peasant craftsmen



Co-operative factory for electric lamps. Archt. Prof. E. Sundahl.



Stairs at Malmö Municipal Theatre. Archts.: Lallerstedt, Leverentz and Hellden.



Postal sorting office, Stockholm. Archt.: Lallerstedt.



In the Stockholm archipelago.

to mill hands. Compulsory free education started in 1842 while the country was still largely peasant. Thus an electrical industrial age came to a race of literate craftsmen who never experienced the wage-slave conditions of early industrial Britain; industrialisation merely gave them new tools. Moreover, Britain also bred a large class of merchants buying and marketing, by means of the world's largest mercantile marine, the products of an overseas empire as well as of its own factories and mills. Our educational system—designed originally to provide clerks—had, and still has, a predominantly literary and arithmetical bias. The Swedish system has always had a pronounced bias towards craft and design. This is true not only of the secondary and technical schools but also of the elementary schools. This craft technique is fostered to no small extent by the abundance of fine iron, timbers and stones.

Thus their architecture starts with an advantage which we do not possess. Not only have their architectural stu-

dents a basic training in technology and understanding of design before they start the study of architecture proper, but—and perhaps this is the more important—the architects begin work with a nation of informed and design-conscious clients. It is true that Swedish architects (who, like all architects, have battles with clients) will possibly demur at this last statement, but it cannot be denied that the general level of public taste is much higher than with us. The most cursory survey of the homes and shops which serve the "man-in-the-street" reveals this as a clear fact.

Lewis Mumford in *The Culture of Cities* classified social and national groupings into "peasants" and "miners," each possessing different sets of values. The Swedes are "peasants" while the British are predominantly "miners." This is not an attempt to decry the British in contrast to the Swedes. The British possess many virtues that are acknowledged and admired by the Swedes, but a public appreciation of architecture is not one of them.

The climate and atmosphere of Sweden form a factor in Swedish architecture which should not be overlooked. Asked how often external woodwork was painted in Stockholm, the chief architect of H.S.B. (the national co-operative housing corporation) replied that it was once every six or seven years. Asked how long the subtly toned self-coloured external renderings of blocks of flats kept their colour and cleanliness, he seemed surprised at the question and said they would last as long as the flats were built for, namely, forty to sixty years. The predominant colour for internal wall decoration is white. So much for atmospheric cleanliness.

The difference in atmospheric humidity between Britain and Sweden seems also to have an influence on cleanliness and the preservation of external paint films. In our climate (if it can be so called) the condensation of moisture on warm surfaces deposits an acid-laden soot from the widespread burning of raw coal. This affects clothes and other textiles, common objects and human hands so that white surfaces become grubby by contact with clothes and hands, while the acids accelerate the decay of paint films. All this is nothing new to experts on atmospheric pollution, but it does place a handicap on architectural design which we hardly realise because we are used to it. British architects could not "get away with" some of the light colour effects which their Swedish confrères handle so well, except at the expense of subsequent cleaning and repainting at short intervals, and even then these colour effects would not be so sharp in our duller light.

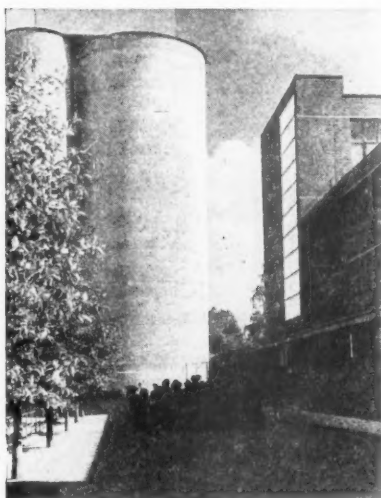
The relative dryness of the atmosphere is perhaps indicated by the fact that they



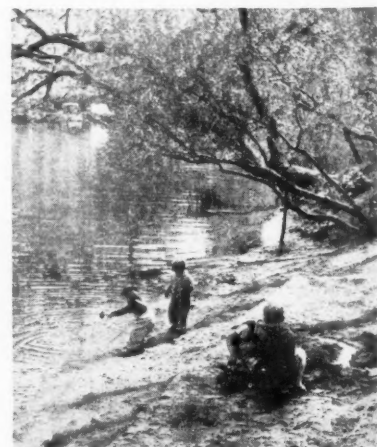
Stockholm Town Hall.

can build the walls of the top storeys of tall blocks of flats in a single 10-in. brick thickness (backed by wood-wool slabs stuck on for insulation and plastered inside) without moisture penetrating to the inside face. Indeed, cavity walling is an unknown craft in Sweden. One can only assume that in Britain our walls always have a higher water content than in Sweden, so that a small amount of driving rain causes damp to appear on the inside. The tall blocks of flats in Sweden are also exposed at times to driving rain, but damp seems rarely to come through the solid walls. On the west coast, however, conditions are not dissimilar from ours.

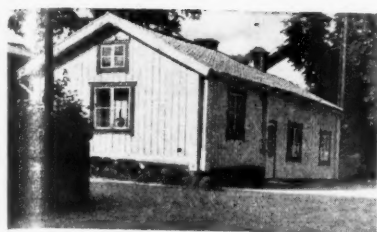
Although Sweden boasts some fine



Co-operative (K.F.) "hard bread" factory.



Scene at an H.S.B. housing scheme.

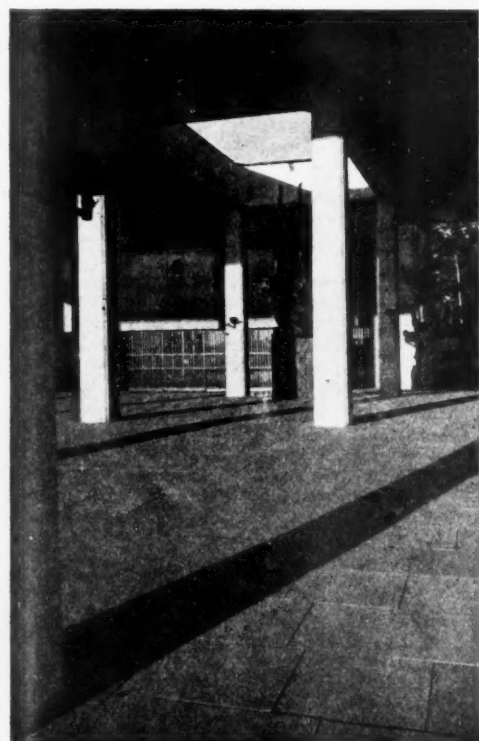


Typical eighteenth-century cottage.

eighteenth-century buildings, the Classic tradition never became so strongly planted there as in Great Britain. It tended to remain the art-expression of the cultured few, the mass of the nation following the old Nordic peasant traditions. This is revealed by the freedom with which doors, windows and fireplaces are customarily placed in buildings of all periods. We in Britain have fundamentally an axial tradition due largely to French and Italian influence over long periods. From time to time we make a conscious effort to escape, as did Street and Barry in the nineteenth century; we are making another attempt now. But by-and-large we have tended—and still tend—to put the fireplace in the middle of one wall and the window in the middle of another; we worry if the elevation does not balance. At heart and by training we

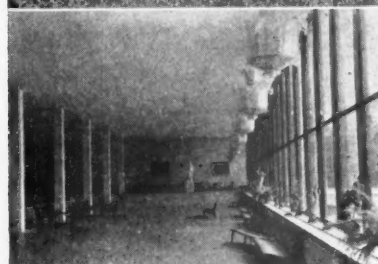


*Asplund's crematorium chapel, Stockholm. Above: the approach.
Left: the colonnade, grilled entrance and statuary.*



Typical Swedish scenery.





are "axially minded." Not so the Swedes and they succeed in achieving good effects none the less, as the accompanying photographs show. Östberg* handled this "non-axiality" brilliantly in Stockholm Town Hall. One instance of many will serve. The Blue Hall is entered from one arcade through another arcade; the two sets of columns do not line up and the entrance anyway is off centre; and it doesn't seem to matter in the least. This characteristic is specially noticeable in the later work of Asplund.

The present renaissance of Swedish architecture began about 1895 with the rediscovery by architects of native crafts and materials. Much the same thing happened in Britain under the influence of Voysey, Ernest Newton and Lutyens, but with us it tended to be used in stylistic conventions (C. R. Mackintosh and W. R. Lethaby differing), mainly in Queen Anne and neo-Georgian. In Sweden this period culminated in Östberg's romantically beautiful Stockholm Town Hall and then died swiftly, but left behind it a valuable legacy in appreciation of the qualities of materials and of revived native crafts.

Even before the town hall was finished something of a Classic revival had begun. The Classic idiom was inflecting current architecture though this tendency never degenerated into mere copyism. Archaic Greek forms became something of a fashion, the Stockholm Concert Hall of Ivar Tengbom† being an outstanding example. It may be noticed in passing that Tengbom earlier built the Högålid church in the native Nordic idiom, but that his most recent buildings are purely modern. Tengbom's work epitomises the changes of thought made by Swedish architects during the last thirty years.

It was this brief Classic period which first captured the attention of British architects. It had a colourful gaiety which contrasted sharply with the rather stodgy use of the Orders by most British architects. It made good use of vigorous sculpture as contrast. A notable example is the placing of a sensational fountain by Carl Milles in front of the static slender colonnade of Tengbom's concert hall.

But the epoch of attenuated Classic died even more quickly than had that of the Nordic arts and crafts. It died at the Stockholm Exhibition of 1930, which the influence of the teachings of Le Corbusier and Gropius on the minds of cultivated and competent Swedish architects turned into the first great

demonstration of a unified and vigorous modern architecture. The newer structural methods were seized on as something to delight in, to express and to emphasise—not to be hidden behind a veneer of purely decorative forms. In this revolution—for it was little else—the leading exponent was Gunnar Asplund. Asplund has just died, at the early age of 53, but his name is already something of a legend. It is true that the more pronounced of the early modern mannerisms have now been dropped under the influence of climate and common sense, but the modern outlook is none the less there, modified by the genius of Asplund. To-day the architects of Sweden are carrying on where Asplund left off, though the rigours of present-day building programmes (mostly housing, shops and schools) have brought Swedish architecture down from the higher flights of the Stockholm Exhibition to a level of uniform competence.

To-day, in 1946, Swedish architecture has lost something of the qualities of sparkle and gaiety which it showed unflinchingly through all its earlier changes of idiom. The widespread use of standardised units perhaps has something to do with this, at least in most Swedish building. There is also a tendency towards informality in form and grouping—almost a studied informality. This tendency seems to have originated with Asplund, though he possessed a strongly developed sense of the dramatic. His crematorium chapel at Stockholm is an example of informality deliberately used to obtain an intensely dramatic effect. The skilfully landscaped approach with its bare curved slopes of grass and informally placed groups of trees; the severely plain stone cross standing alone on a hilltop; the enormous portico of square marble columns (without entasis) and plain timber roof through a hole in which a group of flame-like statuary aspires heavenward; the great grilled entrance, backed by heavy leather curtains; the floor sloping downward towards the catafalque and flanked by colonnades of plain reinforced concrete; the huge floodlit rather theatrical mural painting behind the altar; all these components make a whole which is intensely moving, but which by its very informality conceals (from the architecturally uninitiated) that it is purposefully and very cleverly composed.

The small houses designed by architects exemplify this current informality. Plain brickwork, pantile roofs, windows where they "happen" to come and of the size necessary to light the particular room behind them—an utter absence of apparent striving for effect, but yet how well they look. This is informality used as a mode of expression. Their blocks of flats are much the same. Grouped on the rocky tree-clad slopes of the

* R.I.B.A. Royal Gold Medallist 1926.

† R.I.B.A. Royal Gold Medallist 1938.

Post-glacial scenery. Co-operative small houses. Foyer of the Malmö Municipal Theatre. Family building the cellar for their own prefabricated house.

Stockholm islands, each block with a different shade of wall rendering and with windows and balconies placed where they are wanted and not to balance a façade, they seem informal, practical and very human. They have nothing of the coldly impersonal impressiveness of Classic architecture and its lesser derivatives (such as the typical British inter-war tenement block); nor are they the clever-at-any-cost productions of ultra-modern fanatics. They are an attempt at the architecture of the common man, an architecture which he will understand and in which he will feel at home.

Even the few recent public buildings show this plain informality. The schools are competent but unexciting, as are the community houses, though here and there, as in school halls, the architects show that their ideas are by no means hidebound. The new municipal theatre at Malmö by Lallerstedt, Leverentz and Hellden eschews applied decoration, reveals in the foyer the reinforced concrete soffits of the gallery rake, relies on good timber and acoustic shapes in the auditorium, has a façade of unornamented square marble columns and great areas of plate glass, yet gives the impression of a knowledgeable and skilful opportunism which makes the most of a corner site and of the customary unit masses of a theatre building. At the same time, it would probably look cold and hard on a treeless London side.

A British architect visiting Sweden receives an impression of technical competence in the architecture. The structures look "right" and they appear to behave well under seasonal extremes of temperature. There is great care for detail in equipment and finishes. Research and standardisation are well developed; the range of available stock designs of such things as sanitary fittings, door furniture and windows is small, but the designs are always aesthetically pleasing and technically sound. While standards of accommodation in dwellings are considerably less than with us, domestic equipment is far more highly developed. Interiors seem to have a yacht-like smartness and finish, though the clear atmosphere and the high standard of domestic science training are not without influence in this. During the war years intensive research on the functions of the kitchen was undertaken.

Architectural students undergo a four-year training in schools of architecture after passing through secondary technical schools. Thus, although the architectural course is shorter than ours, the students begin with much of the knowledge that we have to learn in the first year; they have a technological grounding to start with. Moreover, many qualify as engineers before studying architecture, the practice of archi-

itecture being considered in Sweden as superior to that of engineering. The names of the leading architects are known to the general public.

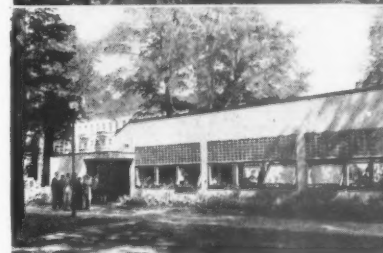
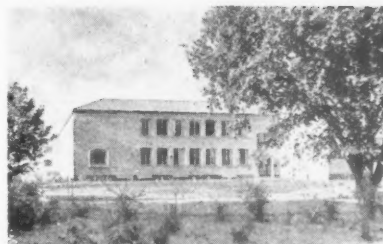
The general body of architects produces work of uniformly good level. A meretricious, ill-planned or poorly designed present-day building is so rare as to be a matter for comment. While at the present time there seems to be no great single outstanding designer among the architects, the average level of competence is high and that of the dozen or so leading men very high.

There appears to be unanimity of thought in design, as though the profession was thinking and progressing collectively along the same lines. Personal idiosyncrasies of architects are not easily observable in their buildings. Whereas with us one hardly needs a catalogue in the architecture room of the Royal Academy to be able to attribute the designs (though this is less true today than ten years ago), in Sweden a large building may be by one of half a dozen men, at least to the eye of a foreign architect. Buildings are less individual and seem none the worse for it.

This article has attempted to report with sincerity some of the influences on and the features of modern Swedish architecture which were observed and discussed by a representative group of British architects. It is not intended to advocate the adoption by us of those features; to what extent that should be done, if at all, is a matter for the reader to judge. He might perhaps defer that judgment until he has read later articles describing the building technique, housing, shops, factories, etc., to which series this article is an introduction. But as a comment on that question, it might be said that when one gets behind the polite but friendly reserve of the Swede (usually late on the third night of acquaintance and after the fourth drink) he will let you know in the most charming manner that Swedish architects think they have much to learn from British town planning but practically nothing from British architecture. This is an opinion based on our achievements up to 1939. It remains to be seen whether that opinion will be modified in a few years when the gestation period of the war and the present time brings forth its fruit. E. L. B.

Photographs. Stockholm Town Hall; Co-op. housing, factories and hostel; Malmö theatre; postal sorting office, by K. W. Douglas [A.]; Asplund's crematorium and 18th cent. house, by F. E. B. MacManus [F.]. Others by Swedish Travel Association.

School at Motala by Ahrbom and Zimdahl. Entrance of a Co-operative factory boys' hostel. Restaurant of Malmö Municipal Theatre. Midsummer festival.



INTERNATIONAL REUNION OF ARCHITECTS

Architect delegates from twenty-two countries met together at the R.I.B.A. during September to take part in the first post-war International Reunion of Architects. This conference was a preparatory and informal meeting of delegates from all those countries interested in international architectural subjects and able to send a representative to London. It is intended to hold the first full Reunion of Architects next year. The present Conference had two objects: first to discuss domestic matters—that is to say, the Affairs of the Reunion Internationale des Architectes, and secondly to form opinions on the desirability or otherwise of taking steps towards the foundation of an international organisation in the field of architecture and town planning, over and above those which already exist. This movement arises very largely out of the formation of the United Nations Economic and Social Council (Unesco). At a recent meeting in New York Unesco decided to appoint a Social Commission and included in its terms of reference the consideration of the desirability of setting up international machinery in the field of housing and town and country planning. This Social Commission is shortly to be appointed and it is likely that it will turn its attention to questions of housing and town planning. Building and town planning are being drawn into the international machine both as social and economic activities; it was therefore felt that architects should take stock of the situation in which architecture may find itself under changing conditions arising out of the activities of the United Nations.

The delegates at the Conference were:—

H. Alvar H. Aalto, *Finland*, Prof. Sir Patrick Abercrombie, *Great Britain*, Armand Bettoli, *North Africa*, J. H. Van Den Broek, *Netherlands*, F. Ernest Burkhardt, *Switzerland*, Cesare Chiodi, *Italy*, Jean Demaret, *France*, C. Van Eesteren, *Netherlands*, Jules Ghobert, *Belgium*, Siegfried Giedion, *Switzerland*, Abdel Moneim Heykal, *Egypt*, Jerzy Hryniewicz, *Poland*, Renos Koutsouris, *Greece*, Jaromir G. Krejcar, *Czechoslovakia*, H. E. Langkilde, *Denmark*, George McNicholl, *Ire*, P. Pardo Monteiro, *Portugal*, Odd Nansen, *Norway*, Auguste Perret, *France*, Pierre Vago, *France*, J. P. Vouga, *Switzerland*, Tage William-Olsson, *Sweden*.

The British Committee, of which the President is Prof. Sir Patrick Abercrombie, the Honorary Secretary Mr. Erno Goldfinger and the Honorary Treasurer Mr. F. E. Towndrow, arranged a full programme. Meetings were held in the Council Room of the R.I.B.A. and the delegates were welcomed at their first meeting by Mr. J. Murray Easton (V.P.) in the unavoidable absence of the President. At the time of going to press the results of the discussions are not yet available and they will in any case be reported to the constituent bodies in each country for approval. It can, however, generally be said that the field covered by the discussions included:—(a) how far the "design" professions are to be included, such as sociologists, building economists, planning administrators, housing managers, estate surveyors, geographers and town and country planners; (b) financial resources available to international bodies; (c) the possibilities of creating international information services; and (d) machinery for exchanges of personnel, covering such matters as visits from, and hospitality for, architects and



The delegates, L. to R.: Sir Patrick Abercrombie, M. J. H. Van den Broek, M. J. G. Krejcar, Mr. McNicholl, Mr. Prentice, M. J. Hryniewicz, M. A. Perret, M. J. Ghobert, M. P. Pardo Monteiro, M. Abdel Moneim Heykal, M. J. Demaret, M. C. Chiodi.

planners in foreign countries, exchanges of students and research workers and the availability of technical personnel for missions in backward or devastated areas.

Among the places visited by the delegates, as a relief from their more formal meetings, were the Ministry of Town and Country Planning, the London County Council (where the County of London Plan was explained), "Britain Can Make It" Exhibition, the Building Research Station, the Building Centre, Kew Gardens, Hampton Court, the Royal Naval College, Greenwich, Sir John Soane's Museum, the Horse Guards, Westminster Abbey, St. Paul's Cathedral, the Royal Hospital, Chelsea, etc. On the first evening the delegates were entertained at a Reception by the R.I.B.A. Council, on the second evening by the British Council, on the fourth evening by the Council of the Architectural Association, and on the fifth evening by the MARS Group. On Saturday, 28 September, the delegates flew over London under the guidance of Sir Patrick Abercrombie.

On 29 September the delegates left by motor-coach on a tour of England, during which they were entertained by several of the R.I.B.A. Allied Societies. The places visited included Brighton, Winchester, Romsey, Salisbury, Bradford-on-Avon, Stonehenge, Bristol, Bath, Cirencester, Oxford, Manchester, Liverpool, Blenheim and Cambridge. In addition to inspection of historical buildings, it was arranged for the delegates to visit Wythenshawe Housing Estate, Manchester, Liverpool Corporation Housing Estates, Liverpool School of Architecture, the Mersey Tunnel, and Letchworth and Welwyn Garden Cities. At Bristol the delegates were shown the City Plan.



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†Revi
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HOUSING IN LEEDS

City Architect :

R. A. H. Livett, O.B.E. [A.]



Perspective of typical pair of houses. The prefabricated and traditional houses are almost identical in appearance. Note the treatment of junctions between blocks

In 1937 the R.I.B.A. JOURNAL published an article* describing and illustrating the housing policy and work of the City of Leeds. This article, apart from describing the work of slum clearance, dealt with the development of a typical housing site (Seacroft) and—perhaps the most interesting feature—described at length the now famous Quarry Hill scheme of flats, then under construction. Since its creation in 1934 the Leeds Housing Department has been noted for its advanced thinking. The Seacroft and other sites were laid out as neighbourhoods long before the term “neighbourhood unit” was even invented. The “daring” experiment of building eight-storey working-class flats with lifts, of using the then revolutionary Mopin system* of construction and of installing a Garchey refuse disposal plant† caused much headshaking among the wisecracks. The housing estates even provided sites where brewery companies could build public-houses, at the time an innovation in housing practice which startled the conservative-minded and, incidentally, the temperance societies. The City built a working-class hotel as an alternative to the common lodging-house. It refused to employ balcony access to flats, although that form of plan was then usual in tenement buildings. It ran a furniture business for its tenants in order to combat the evils of hire purchase of shoddy goods and of bug-ridden second-hand goods. Its staff included a Kew-trained arboriculturist (and still does) to plant and maintain trees on its housing estates. The Leeds Housing Department was indeed always pioneering. At a time when it was considered unwise to transfer slum dwellers direct to good surroundings with all modern amenities, Leeds was not only doing it but generally making a success of it.

The outbreak of war arrested this work in full career. Quarry Hill, then just completed, was taken over by the Army; its garden courts were dug up for air raid shelters. The City Architect, at that time the Director of Housing, and his staff became responsible for billeting and other purely war-time work. Nevertheless they found time to develop their post-war ideas and this year finds them starting with vigour on a greatly expanded programme of building. The following notes and the accompanying illustrations are the fruit of a recent visit to Leeds.

First about Quarry Hill. This scheme of 939 flats, 20 shops, a community centre, nursery school, clinic, communal laundry,

etc., has stood the stress of war-time neglect (and of the Army) very well. Although the outside walls are grimy, the trim not yet all repainted, and the gardens a confusion of mounds over air raid shelters, it is still weathertight and comfortably habitable and looks good. In a recent census of all householders of Quarry Hill of longer than twelve months’ tenancy the question was asked “Which do you prefer, a house or a flat?” Sixty-six per cent. were in favour of a flat.

The Post-War Housing Report of the Housing Committee summarises the immediate problem as:—Rehousing of families to be displaced from slum areas still existing (16,073 dwellings); relief of overcrowding (2,500 dwellings); Open Register applications for dwellings (3,000); war-time marriages, returned from the Services, permanently disabled (3,000); rehousing due to war damage (500). The total of these Stage I dwellings required is 25,073.

The above estimate covers immediate needs only. There remains the problem of dealing with houses which have become obsolescent as a result of the raising of standards. This will affect those intermediate back-to-back houses still remaining and not covered by earlier Acts. Their demolition will involve the provision of a further 28,000 dwellings as Stage II of the programme. The Committee say that the estimates are conservative, but they look to private enterprise to meet the need to some extent. It was originally hoped to complete Stage I within eight years and Stage II within ten. Meanwhile, however, the Temporary Housing programme has come into being and this will mitigate to some extent the hardships likely to be suffered by the population during the period of rehousing.

Before the war Leeds experienced difficulty in finding enough bricklayers and plasterers for all classes of work; this problem is now accentuated. The City Architect therefore set about designing a permanent prefabricated house. The design has been approved by the Ministry of Health, prototypes have been erected and the first contract let. The house is described below.

Contracts for houses already let are as follows:—

1. Traditional construction: 1,400 houses of 2 and 3 bedroom type. The 2 bedroom type is 865 sq. ft.; cost £1,081; cost per sq. ft. £1 5s. The 3 bedroom type is 1,030 sq. ft.; cost £1,184; cost per sq. ft. £1 3s.
2. Prefabricated construction: 1,500 houses of 2 bedroom type and 500 of 3 bedroom type. The 2 bedroom type is 858 sq. ft.; cost £1,201; cost per sq. ft. £1 8s. The 3 bedroom type is 1,021 sq. ft.; cost £1,301; cost per sq. ft. £1 5s. 6d.

*Housing and Slum Clearance in Leeds. R.I.B.A. JOURNAL, 5 June 1937.

†Review of Construction and Materials. R.I.B.A. JOURNAL, 24 March and 14 April 1934.

IRELAND WOOD ESTATE CITY OF LEEDS



KEY

- | | |
|--------|--------------------------|
| S.C. | Social Centre |
| P. | Play Park |
| O.P. | Open-Air Pool |
| B. | Baths |
| L. | Library |
| C.L. | Clinic |
| C.H. | Church Hall |
| H. | Hotel |
| F. | Flats |
| S. | Shops |
| L.D. | Laundry |
| O.P.H. | Old People's Hall |
| P.S. | Police Station |
| W.M.C. | Working Men's Club |
| S.W.C. | Social Welfare Committee |



MOORTOWN ESTATE
CITY OF LEEDS

KEY

S.C.	Social Centre	L.	Library	F.	Flats	P.S.	Police Station
P.	Play Park	C.L.	Clinic	S.	Shops	W.M.C.	Working Men's Club
O.P.	Open Air Pool	C.H.	Church Hall	L.D.	Laundry	S.W.C.	Social Welfare Committee
B.	Baths	H.	Hotel	O.P.H.	Old People's Hall		

The prefabricated contract has a total value of about £3,500,000. The contractor is erecting his factory for making the vibrated concrete wall units. It is expected that later contracts will show a reduction in cost per house as the system becomes familiar.

The long term (Stage II) programme involves the provision of 8,000 flat dwellings (none are being erected at present, though schemes have been planned), 9,000 terrace houses, all in the middle ring of the city, the balance of dwellings required being provided in houses and flats on the perimeter of the city. The Corporation already possesses land for 15,000 dwellings.

The temporary housing programme comprises the erection of 1,500 bungalows as follows:—Belle Isle Estate, 200 Phoenix type, completed and occupied; Seacroft Estate, 104 American type, completed and occupied; Beckett Park, 118 Aluminium type, in course of erection; Cottingley Hall, 565 Aluminium type, development about to begin. Sites for others are under consideration. The Cottingley Hall scheme includes shops, a hotel, a social centre, a church, schools and playing areas.

Estate Planning

Plans of three estates are reproduced, which will serve to illustrate the principles being followed and the amenities provided. The estates are on the perimeter of the city. First it should be emphasised that the City Architect is not a law unto himself. He has to collaborate with other departments of the Corporation, all of whom have their requirements and special duties. It is apparent that this collaboration is thorough. Also, as with most other cities, interests and needs occasionally conflict and have to be mutually resolved. For example, land is bought by the authority according to its availability and cost. In theory they can use powers of compulsory purchase for any land, but in practice there are limitations. Land when bought may not accord conveniently with the main lines of road traffic, which are to no small extent governed by the contours of the hilly country in which Leeds is situated. Therefore main traffic arteries may unavoidably cross housing sites, leaving a problem which the City Architect has to solve by means of subways, the location of dwellings away from the main road and by land reservations at the sides of it.

The principle of neighbourhood planning is fully carried out in the three schemes here illustrated. The public buildings are all located in central park land (by agreement with the Parks Department who will maintain the planting and grass). Blocks of flats are grouped in association with the shopping centre and public buildings. Sites are provided for private enterprise to build churches, chapels, hotels and public-houses, the City Architect having powers of control over their design. The permanent prefabricated houses will be grouped with houses of traditional construction.

Some details of Moortown Estate will serve to illustrate the principles followed, though this estate was the first of the three to be planned and some modifications have been made in the other two. The site is bisected by King Lane, a main traffic artery. The larger part is to the west and the community centre



has accordingly been located in it, a pedestrian subway (not shown on the plan) linking the eastern half. Large areas for playing fields have been reserved south of the Ring Road and also are not shown on the plan.

The layout allows for approximately 1,000 dwellings west of King Lane and 600 to the east. These are allocated as 20 per cent. cottage flats, Type A1 (10 per cent. one bedroom, 10 per cent. two bedroom); 39 per cent. two bedroom houses, Type A2; 35 per cent. three bedroom houses, Type A3; 3 per cent. four bedroom houses, Type B4; 3 per cent. five bedroom houses, Type B5. In addition there are 100 three-storey flats for single women and 200 two bedroom flats. Sites are also provided for the Social Welfare Committee for homes for children and old people, doctors, dentists, midwives and housing managers.

Within the Community Centre park sites have been reserved for the social centre, a library, swimming baths, a clinic, a rest garden and certain recreational facilities. Adjoining the Community Centre are sites for a hotel with car park, cinema with car park and 16 shops with stores and garages.

Eleven play spaces for children have been planned about the estate, so arranged that there is a play space within a quarter of a

mile of each dwelling. These are additional to the spaces on the perimeter of the development.

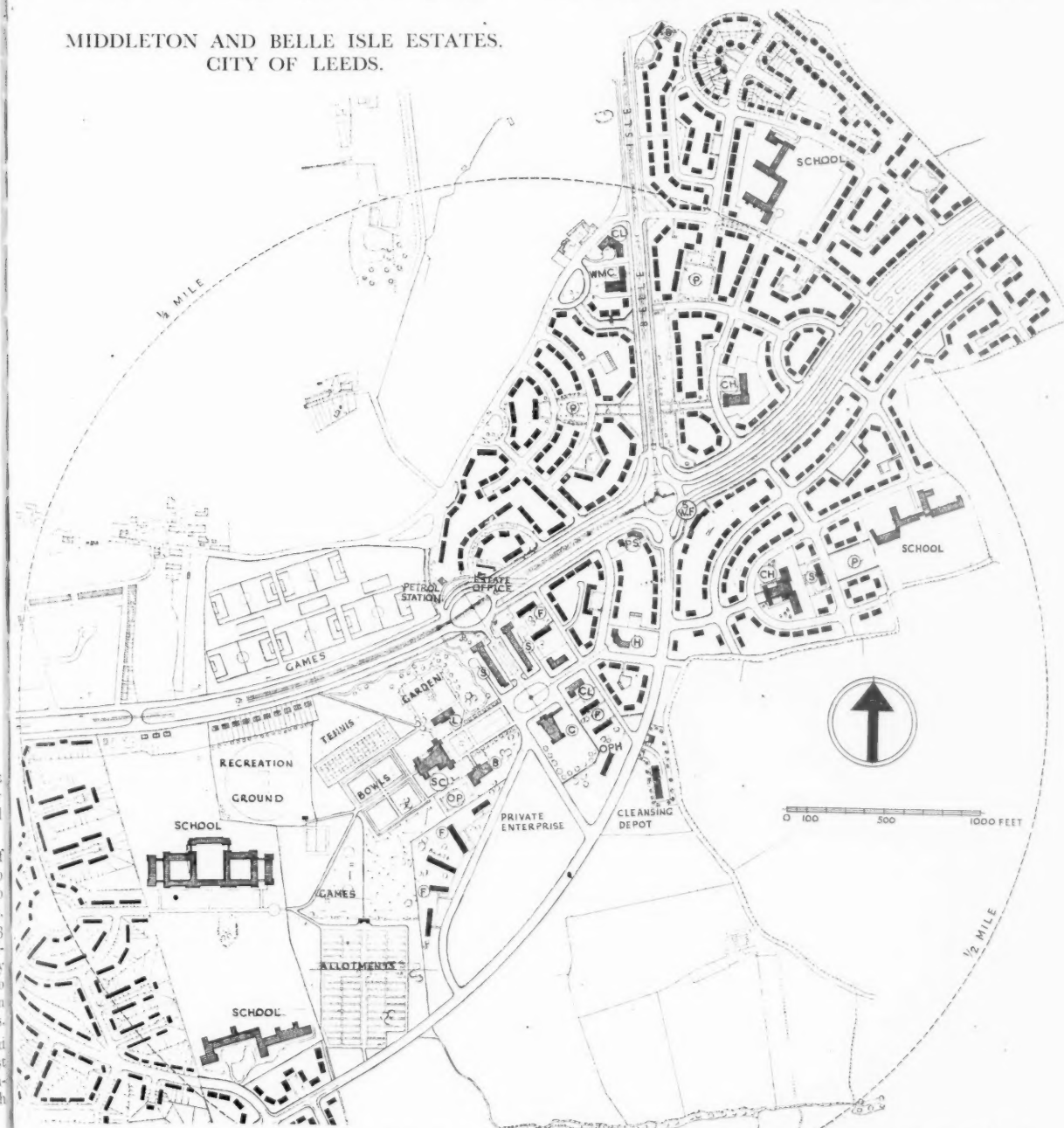
The eastern part of the estate has its own small shopping centre (12 shops), and hotel. Sites are also reserved for a church hall adjoining the Community Centre, for a Jewish church, the extension of the cemetery of the existing church, for the Waterworks Department, the Highways and Cleansing Depart-

ment and an electricity sub-station. There will be a bus service along King Lane and a two-terminal service on the Ring Road.

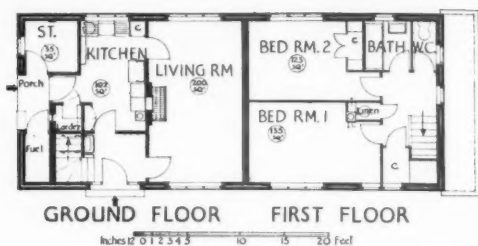
An existing girls' high school came within the curtilage of the scheme; provision has been made for extending its premises and for a new technical school. Two new junior infants' schools are also to be provided, one in each part of the estate.

The same principles have been followed in the Ireland Wood

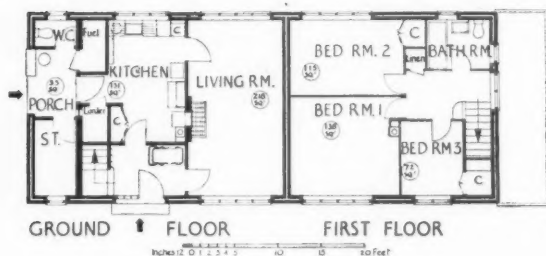
MIDDLETON AND BELLE ISLE ESTATES. CITY OF LEEDS.



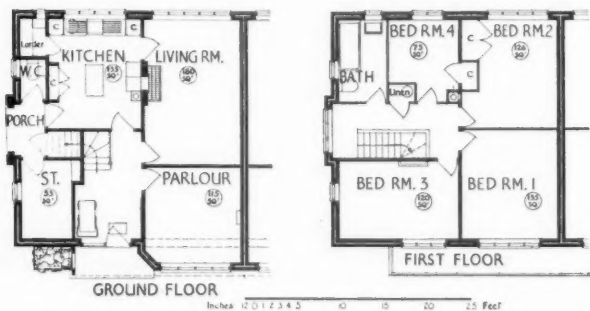
KEY.—S.C., Social Centre; P., Play Park; O.P., Open Air Pool; B., Baths; L., Library; C.L., Clinic; C.H., Church Hall; H., Hotel; F., Flats; S., Shops; L.D., Laundry; O.P.H., Old People's Hall; P.S., Police Station; W.M.C., Working Men's Club; S.W.C., Social Welfare Committee



TYPE A2. Basic house 800 sq. ft. Annexe, Fuel, part Store, etc., 65 sq. ft. Total 865 sq. ft.



TYPE A3. Basic house (with Fuel) 922 sq. ft. Annexe (with W.C., Store and Porch) 108 sq. ft. Total 1,030 sq. ft.



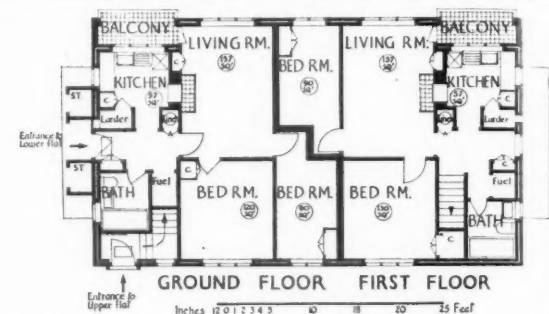
TYPE B4. Floor area 1,263 sq. ft. Less Porch 17 sq. ft. Nett floor area 1,246 sq. ft. For 7 persons



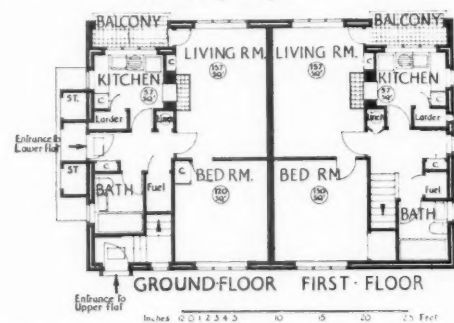
TYPE B5. Floor area 1,385 sq. ft. Less Porch 36 sq. ft. Nett floor area 1,349 sq. ft. For 8½ persons

Estate, which is, however, long and relatively narrow in shape. Again the Community Centre is placed in the middle on a fine site facing south-east towards a wood. Features of the plan are the careful retention of existing woodlands, even when these come in the middle of the plan, and the inclusion of an area for light industries.

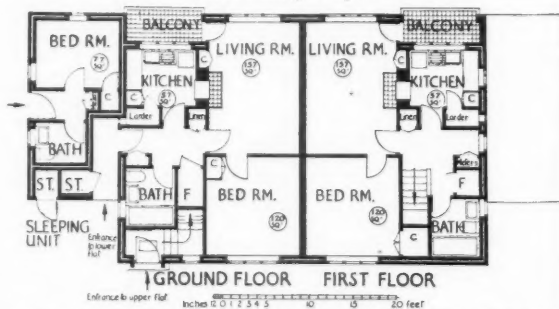
The third scheme, here shown in two plans, consists of a new housing area—the Belle Isle Estate—and a Community



AGEING PERSONS' COTTAGE FLATS, TYPE A1. Total floor area 510 sq. ft.



AGEING PERSONS' COTTAGE FLATS, TYPE A2. Total floor area 510 sq. ft.



AGEING PERSONS' COTTAGE FLATS WITH SLEEPING UNIT ATTACHED, TYPE A1/2. Total floor area of flat 510 sq. ft. Floor area of sleeping unit 130 sq. ft.

Centre serving both it and an old housing scheme—the Middletons Estate. The latter was built soon after the last war in the era when local authorities were allowed to provide housing and nothing else. The main shopping centre has a social centre, library, covered baths, an open-air pool and clinic, and facilities for games are associated with it. The Belle Isle Estate is in two groups, each with its subsidiary public buildings, shops, public houses and schools. Tram and bus routes link the whole lengthy group together.

House Plans

These have certain distinctive features in both the prefabricated and traditional constructions. The through living room is used in all but the four and five bedroom types. This allows freedom in orientation because sunshine will enter the room either at the middle of the day or in the morning and evening. The flue stack is in the centre of the house and not on the party walls; this allows the flue stack as well as convection heating to warm all rooms. There is a second W.C. near the back door in all but the two bedroom houses. Ample storage space is provided, as well as cupboards in the secondary bedrooms; the omission of the clothes cupboard from the best bedroom is deliberate because experience shows that tenants like to have a "best bedroom" suite of furniture which includes a wardrobe, even when a clothes cupboard is provided. Window areas are generous, but not excessive, and there are no glazing bars. Winders on the stair-cases are rare; when used they are at the bottom of the stair.

The heating system consists of an openable constant-burning stove in the living room with oven and hot plate in the kitchen. This provides convected air to two bedrooms and hot water.* An electric immersion heater operates in the hot water cylinder in the summer; the best bedroom has an electric fire and there are plugs in the other rooms and on the landing. Many of these features—and others—are the fruit of the previous experience of the Department in house building and management.

The Prefabricated House

The main reasons for the decision to design a prefabricated house were, first, to circumvent the local shortage of bricklayers and plasterers, and secondly, to have a fluid system of construc-



The prototype pair of L.C. prefabricated houses. The side extensions (see plans) have now been added to the design. The tenant of the right-hand house has covered all the windows with imitation leaded lights!

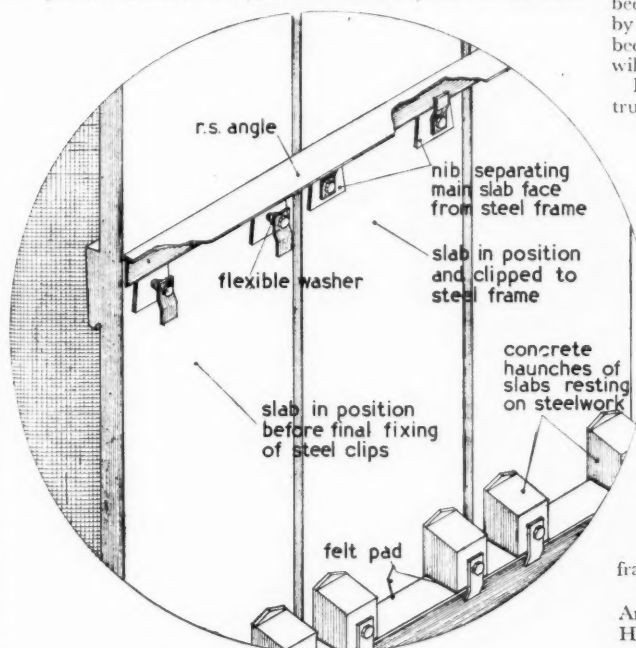
tion capable of containing the accommodation and amenities decided on for all houses and usable for more than one size of house. These advantages are not possessed by most commercially available designs. Also the prefabricated house had to have an appearance which could harmonize with homes of traditional construction, thereby giving greater freedom in the layout of estates and the organisation of contracts.

The L.C. System of Construction is so named because it has been designed by Mr. R. A. H. Livett, the City Architect, and by Mr. J. O. Cartwright, a production engineer. Patents have been applied for and it is understood that the patentees are willing to grant licences for its use.

Basically the system consists of a steel frame with steel roof trusses to which vibrated pre-cast concrete units are clipped to form the outer wall skin. The inner wall skin consists of timber framing surfaced with plasterboard, insulation being provided by a glass wool blanket. First floor joists and ceiling joists are of timber, the ceilings being of plaster board; floors of the living room and first floor rooms are of tongued and grooved boarding, granolithic being used in the kitchen and quarry tiles in the hall; the roof is surfaced with light green or red asbestos cement strip tiling.

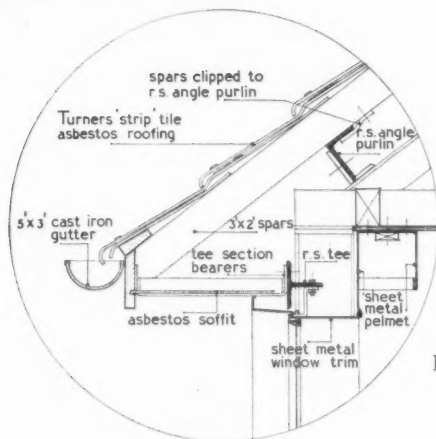
The steel frame is first erected on concrete stanchion bases. The lines of the outer walls are then delineated by concrete base blocks carrying a d.p.c. and spanning between stanchion bases. Vertical concrete slabs, 2 in. thick and 1 ft. 6 in. wide and of full storey height (or up to window cills) are then dropped into the slot in the base block, pushed up against the steel frame and secured by turning up a simple clip behind horizontal steel channels; the nut holding the clip is then tightened up. The first floor wall slabs are secured in the same manner and are carried on the horizontal steel channels. The method is clearly illustrated in the details on this page and on pages 538 and 539. The concrete units are insulated from the steel frame by felt pads and flexible washers.

The concrete slab system owes much to the experience of the Architect's Department with the Mopin system used at Quarry Hill. Much was then learnt about the subtleties—which are more numerous than the uninitiated may imagine—of making vibrated concrete wall slabs. For instance, it was found that the addition of a special "self face" to such slabs added con-

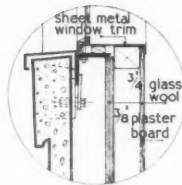


METHOD OF HANGING SLABS

*For a report of tests on the heating system see Appendix.

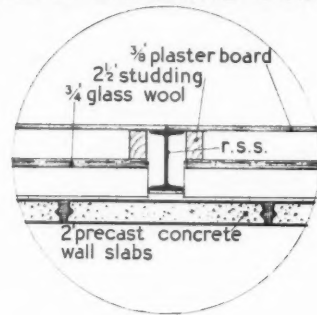


DETAIL AT A.



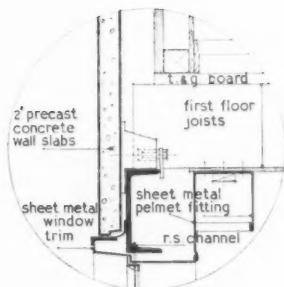
DETAIL AT B.

HORIZONTAL SECTION PASSING INTERMEDIATE STANCHION

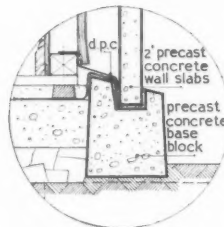


THE L.C. PREFABRICATED HOUSE

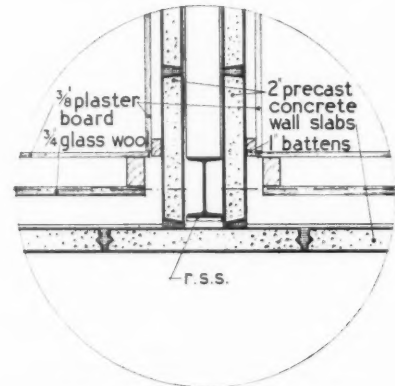
The details refer to the plans on the opposite page.



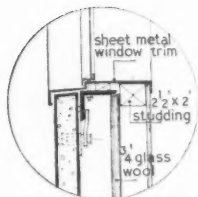
DETAIL AT C.



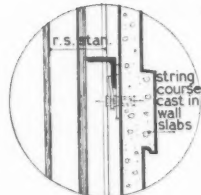
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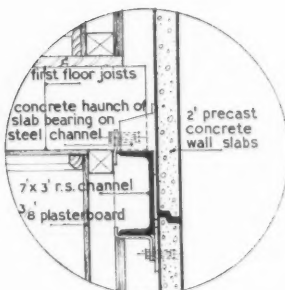
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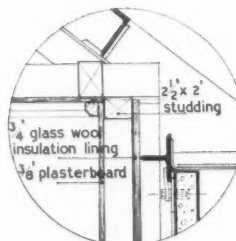
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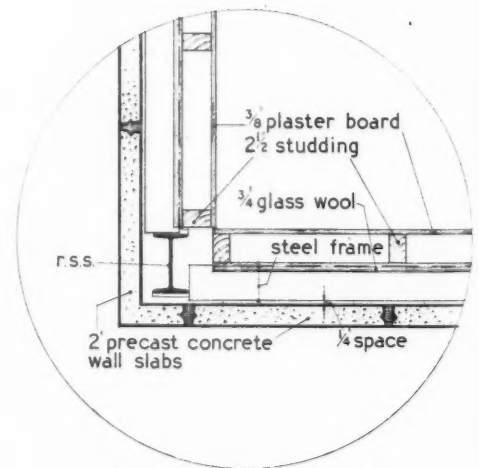
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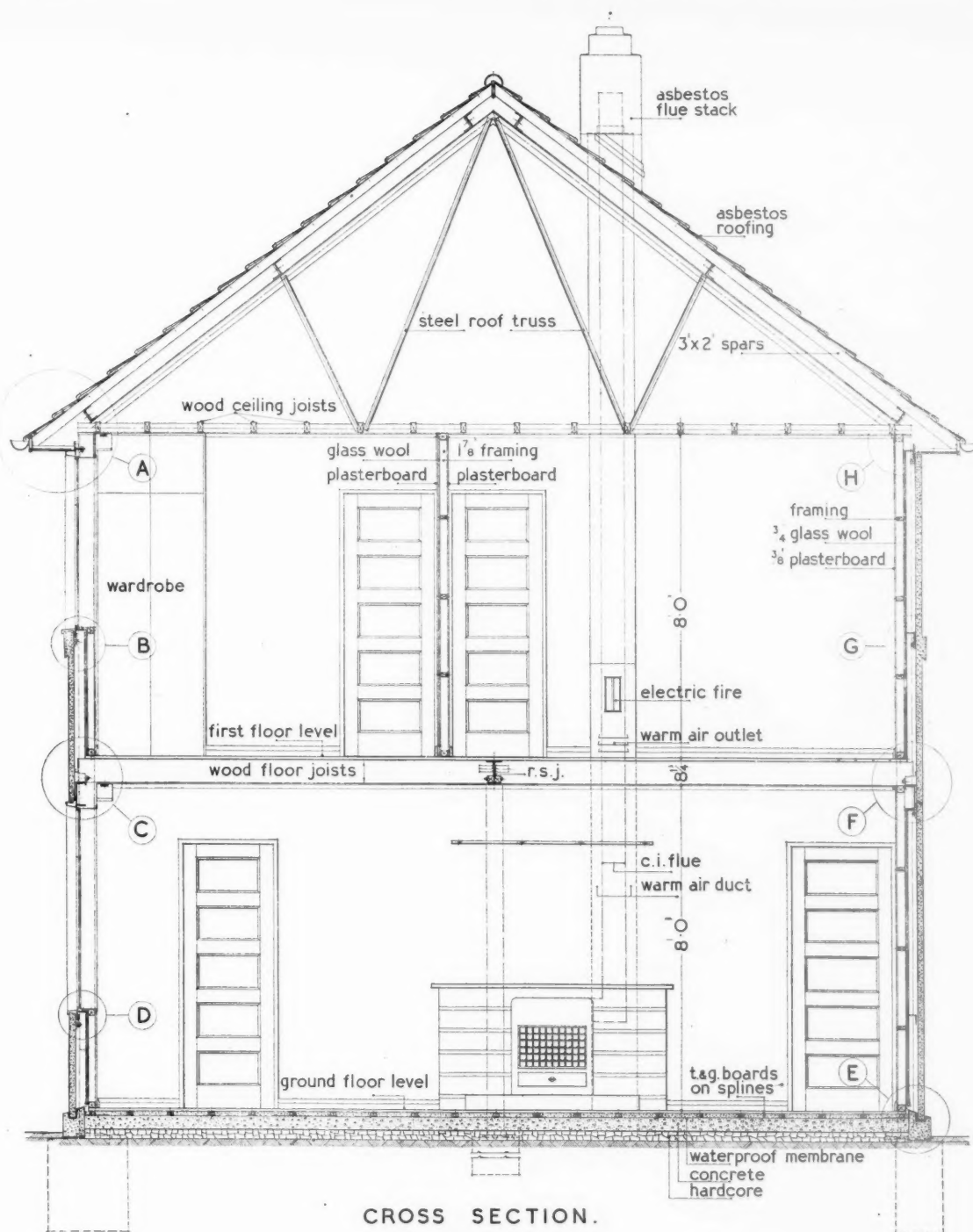
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DETAIL AT H.

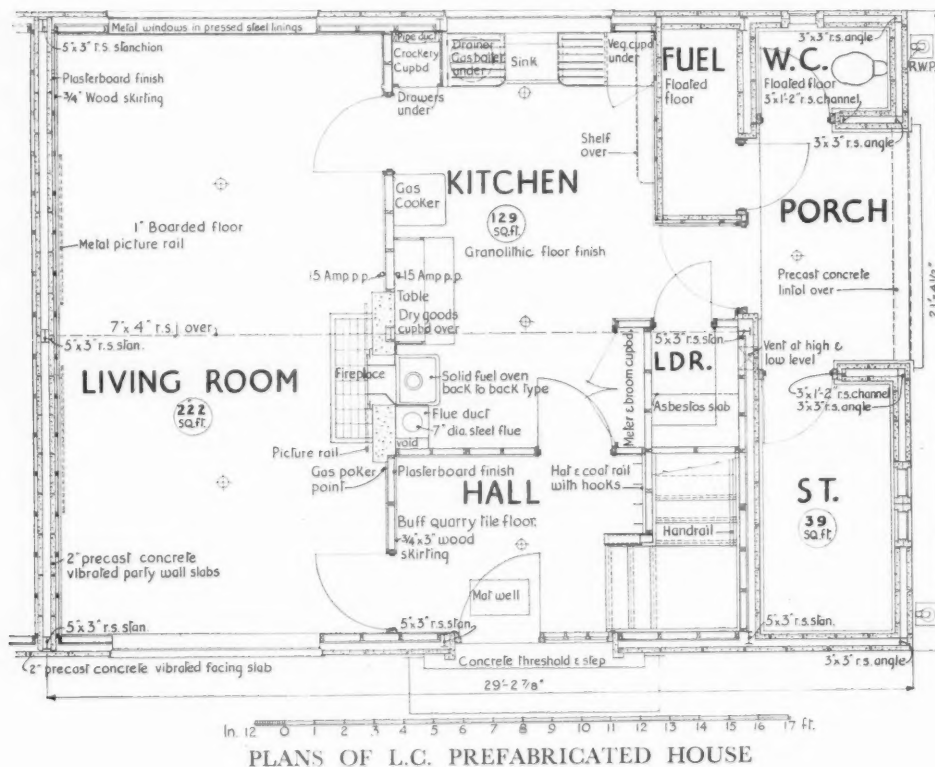
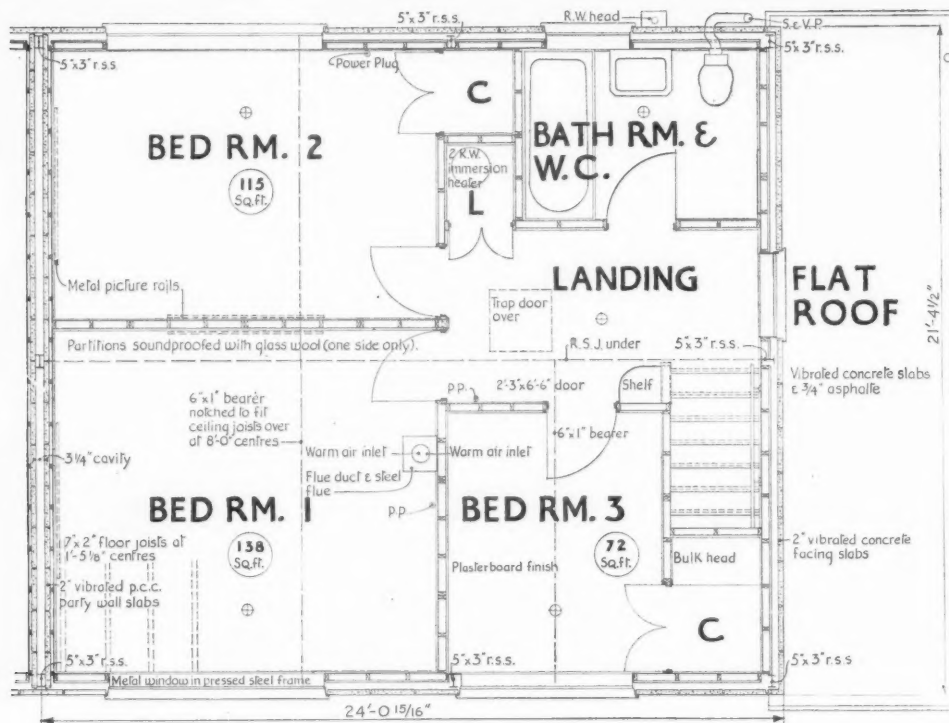


HORIZONTAL SECTION AT CORNER



SECTION OF L.C. PREFABRICATED HOUSE CONSTRUCTION

For details see the opposite page.



PLANS OF L.C. PREFABRICATED HOUSE

siderably to their cost. Therefore the finish is in natural concrete (turned out on to a sanded pallet), the house being subsequently colour-washed. Each slab has lugs cast on the back which make a minimum area of contact with the steel frame and which are shaped to shed any moisture into the cavity. The first step in making the slab is the placing by the operator of four rawlplugs on four spikes in the mould. These rawlplugs become embedded in the concrete and subsequently receive the coach bolts holding the clips and a flexible waterproof washer.

The vertical joint between the slabs is that used at Quarry Hill. It is simply pointed up in cement mortar after the wall is finished, this work, together with the surface concreting, being the only wet work in the construction. This joint has been found to function perfectly at Quarry Hill.

The steel framework includes a single central internal stanchion (up to first floor level only) which carries steel beams supporting the first floor joist system. This stanchion can be moved accordingly to the type of house and, together with the flexibility of the external wall slab system, allows considerable variation in the type of house, provided dimensions are in the 1 ft. 6 in. unit width of the slabs.

The timber inner framing consists of studding to which the plasterboard and glass wool blanket are fixed in the factory. An ingenious vertical joint between the sections of studding (not shown on drawings) ensures alignment. The vertical studs are a sandwich of two pieces of timber with a piece of plywood between. This plywood piece has a way edge alternately projecting beyond the stud and forming a recess. Projections fit into corresponding recesses in the opposite stud.

The roof is hipped, partly to avoid the difficulties and expense of special gable slabs and partly to give an eaves projection to protect all walls

equally. Timber spars (or common rafters) are bolted to steel purlins to which the asbestos roofing is nailed without the use of battens. It should be noted that the amount of timber used per house is less than two standards.

The fireplace is constructed of cast concrete blocks, the flue above being 7 in. dia. cast iron. This tube is surrounded by an asbestos cement casing, which acts as a warm air duct to the bedrooms. The flue stack above the roof is also of asbestos cement. Behind the fireplace and in the kitchen there is a small airing cupboard heated by the flow and return pipes. This is in addition to the linen cupboard containing the cylinder.

The windows are of steel with linings and internal and external sills of pressed steel; there are also sheet metal box pelmets for curtains. The party walls are of two thicknesses of 2 in. vibrated concrete slabs and are carried up to the underside of the roof surface. They give the required one hour fire resistance according to the B.S. Definitions 476.

An experimental portion of the construction was first erected followed by a pair of prototype houses. Since these houses were erected, the plan has been somewhat altered by the addition of an annexe containing an extra W.C., a store and a back porch. This explains the discrepancy between the photographs and the plans. The appearance of the amended design will be that shown in the perspective. The two prototype houses are now occupied by a householder drawn from the open register and by a member of the Corporation staff who is acting as an "observer" and keeping records of temperature and structural performance.

APPENDIX

HEATING TESTS ON PROTOTYPE HOUSES

THE L.C. SYSTEM OF CONSTRUCTION

Tests carried out on the Convector Heating Unit 24 October 1945

Weather Conditions Fine and mild, but heavy rain showers with strong winds towards noon.

Fuel Used Coal and coke maintaining a normal fire.

Dampers Hot water damper open.

Fire Set 10.15 a.m.

BEDROOM 1 With hot air in duct

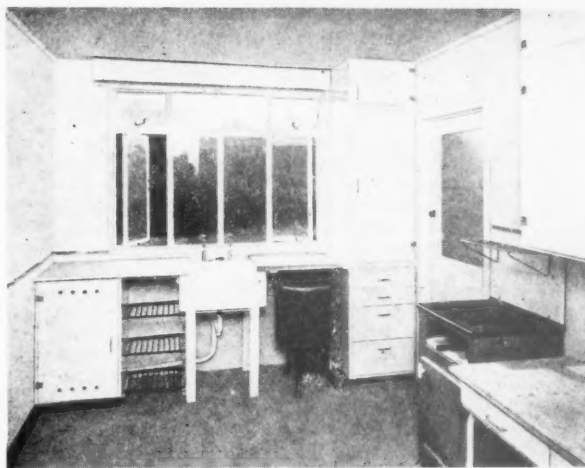
Time	Room Temperature	Outside Temperature
	Degrees Fahr.	Degrees Fahr.
10.30 a.m.	58	57
11.30 a.m.	60	55
12.30 p.m.	64	54
1.30 p.m.	66	52
2.30 p.m.	68	52
3.30 p.m.	66	56

BEDROOM 3 With hot air in duct

Time	Room Temperature	Outside Temperature
	Degrees Fahr.	Degrees Fahr.
10.30 a.m.	58	57
11.30 a.m.	59½	55
12.30 p.m.	62	54
1.30 p.m.	62	52
2.30 p.m.	63	52
3.30 p.m.	64	56

BEDROOM 2 No Heating

Time	Room Temperature	Outside Temperature
	Degrees	Degrees
11.0 a.m.	54	56
1.30 p.m.	54½	52
2.30 p.m.	56	52



The standard house kitchen. For particulars of fittings, see plans.



The standard house kitchen. Note the oven beyond the table.



The L.C. prefabricated prototypes under construction.

TOWN AND COUNTRY PLANNING

SUMMER SCHOOL

Conference at Durham, 1-8 September, 1946

Town planners met at Durham from 1 to 8 September to discuss principles and methods of town and country planning at a Summer School held under the auspices of the Town Planning Institute. We have not space to report the many interesting papers in full. The following is a summary.

Contrasts and Diversity in Town Planning

Mr. Thomas Sharp [L.], Past-President of the Town Planning Institute, in a paper entitled "Beauty, Beastliness and Dereliction in Durham," pointed out that our modern habit of providing abundant space in town plans lost some element of the charm of mediæval cities. He said:

"I would like to ask you, especially, to note in your perambulations of the city, what a liveliness and diversity of interest result from the contrasts between a concentration of buildings and an openness of landscape, and between the narrow street and the small enclosed square, as they occur here. The contrast between concentration and openness is specially well illustrated on the cathedral peninsula. There, the buildings, for the most part, crowd together on to the limited amount of building land available; but round the peninsula the eye is given a far wider range, so that coming from the narrow slit of the Bailey, for example, the beauty of the embowered river valley seems all the more astonishing. This delight of contrast is something which we have quite lost in the towns and suburbs that we have been modelling on late renaissance principles of civic design which have been crossed by so-called garden-city notions: and the loss, I suggest, is a very serious one. So is the loss of that other contrast—between the narrow street and the more enclosed space. It is, of course, a contrast of something of the same kind. Here in Durham, one gets, within the main concentration itself, a still further interplay of contrasts. You will see this in the market place. There you have a very good example of the mediæval principles of space organisation. You will notice how the three streets which enter the market place are all very narrow and tortuous. Each of them curves as it enters the square. So, coming along those streets towards the square, the opening it makes is hidden until one is almost upon it. In this way two emotional satisfactions are provided—satisfactions which are never quite dulled, even to those who pass in and out of the market place continually, going about their daily lives as citizens. One of the satisfactions is that of surprise; the other is that of an experience of climax.

"One of our most important tasks is to re-capture and re-create beauty of this kind. Our planning has given us suburbs which are no doubt far more healthy and convenient than our old towns are, but they are places which, in their all-over sameness, in their lack of contrast, are flat and dull and wholly uninteresting. I know, of course, that in giving light and air, and in providing for traffic movement, we can no longer create precisely the same kind of beauty as we get in these old cities. Nor, indeed, should we. I am not in the least suggesting that we should imitate any period of planning in our planning to-day. But it is most necessary that we should learn and apply principles which have resulted in such beauty as we see in these old parts of Durham."

Description of a Special Area

Mr. Sharp then went on to discuss the main subject of his paper which was the problem of the semi-derelict area as repre-

sented by the South-West Durham coalfield. This area was contained in a rough circle about 10 miles in diameter with its functional centre at Bishop Auckland. It was by no means a black country though it was sadly mutilated, but not irremediably befouled. The district round Bishop Auckland was still attractive valley and upland country, richly undulating and with extensive open views. But while the general panorama was for the most part pleasant enough, the details within it were by no means so good. There were six small towns with an average population of 12,000. They were six sad little towns—six similar collections of bare featureless streets of grim little houses; each with a dreary main street of scattered little shops, with even more squalid but not so little pubs, with a seedy cinema or two and with the Co-operative Stores rising up as the most important building.

The rest of the population lived in pit villages; these were far worse than the small towns. They were created in naked and unashamed brutality. It was these which specially reflected the beastliness which he had mentioned in the title of his paper. They were the kind of places which would make any sensitive person reflect on man's inhumanity to man. Some were groups of houses clustering about pitheads; others were small thin ribbons round the roadside or railway side, or even in the middle of fields—approached over a rough track; in the older villages the houses were mainly built of stone and were decent enough in themselves though now quite outworn. But their grim general effect was almost beyond description. Many had no gardens or yards of any kind, back or front. There was not a blade of grass or a tree in the whole place. Generally the fronts of the houses had a sealed appearance. The back streets contained all the life and movement of the place. They were wide windy gaps down the middle of which ran rows of privies, middens and coalhouses. The front and back streets were alike in being almost invariably unpaved and had been so for the past 80 or 100 years; they were simply black tracks of coal dirt: dusty in summer, ankle-deep in mud in winter.

At the highest point of its development, about the end of last century, there had been some 50 pits working in the district. Of the 135,000 inhabitants all but a few thousand agricultural workers existed solely, whether directly or indirectly, by the winning of coal. But coal could never again be economically won except on a small and ever-diminishing scale. The district was, however, by no means worked out. It was a matter of economics. Coal must not only be workable but economically workable. And now that easy coal had been won in South-west Durham the hard places yielded no profit. After describing the appalling social effects of the steady decline in coal production with its unemployment and poverty, Mr. Sharp said that alleviatory measures had, of course, been taken. The Council of Social Service had set up centres to teach unemployed miners remote subjects like country dancing and cobbling. Schemes for levelling pitheads had been instituted. Some public relief works with little or no relation to each other were undertaken, mainly for the purpose of enabling men to re-qualify for the dole when they had exhausted their possible drawings from it. Otherwise, year after year, time just went by in sheer grinding poverty and human waste. Some idea of the poverty could be gained from the fact that the Colliery Companies in

several cases had offered to sell houses to workmen at £25 apiece, but none had had sufficient money to buy them.

More definite measures were taken just before the war. A small factory estate was developed at St. Helens, where some three or four factories were built to produce things like buttons and handbags. They generally employed young girls at deplorably low wages. Then, during the recent war, everything changed. The great munitions works at Aycliffe employed some 30,000 and other munition works and factories in other places in the district employed several thousands more. But the war was over and peace loomed black for the inhabitants of South-west Durham. It was true that the old days of neglect had gone and the Government was now directing industries into the district, but the basic industry of mining was in the same old condition.

Treatment of a Special Area

Mr. Sharp went on to say: "If the area is to be rehabilitated as a workplace, it must also be rehabilitated as a living place. But its rehabilitation as a living place will never be achieved without vital, large-scale, creative planning, inspired by a pressing sense of urgency. This is not the kind of planning problem to tinker with. Tinkering may be almost worse than useless, as the activities of the Commissioners for Special Areas during the 1930's illustrated so well. You may remember that the Commissioners were authorised to spend large sums of money to undertake work for the purpose of relieving unemployment. In the four years between 1934 and 1938 they spent something like twenty million pounds on the Special Areas of the country generally. But the works they undertook were all separate small-scale works—a sewerage scheme here, the provision of w.c.'s instead of privies there, the establishment of groups of smallholdings all over the place. The reason why these things were worse than useless in the long-term planning view, was that they more often than not gave a new lease of life to things and conditions which should have been abandoned and destroyed. They were merely ameliorative activities, which were not only unplanned in themselves, but which made true planning all the more difficult.

"What is wanted now is creative rehabilitation. The old-fashioned negative statutory planning is merely an insult in an area like this. It is the preparation and execution of a positive plan that is needed. That, and that only, will meet the case. Here in South-west Durham, it seems to me, there is an opportunity, indeed more than an opportunity, a *criying necessity*, for the establishment of something like a small-scale Tennessee Valley Authority, which will do, for this comparatively small derelict area, what that Authority did for a derelict area almost the size of Great Britain."

The North-eastern region was fortunate in that the President of the Summer School, Mr. G. L. Pepler, was to prepare a survey and plan for the development of the whole. He hoped Mr. Pepler would agree that a plan of a different nature from the usual type was necessary. It would have to amount to a fully detailed working plan, not an outlined advisory plan. He suggested that the Government had a responsibility in undertaking the reconstruction of an area like this. South-west Durham had contributed enormously to the national wealth in the past and had a right to draw on that wealth in its time of need.

New Towns

Mr. Gordon Stephenson [F.], in a paper entitled "New Towns," said that few who had attended last year's Summer School would have expected that there would have been a New Towns Act on the Statute Book by now. The action had been remarkably rapid from the constitution of a New Towns Committee to the passing of the Act. Never before had a vital weapon been so speedily placed in the hands of planners. Never before had the need for such a weapon been so great. The housing drive of the next few years might otherwise have gone the way of the inter-war period. Ten years from now, twenty new towns would be nearing completion in England, Scotland

and Wales. We should have little excuse if they were not of high quality and really attractive places in which to live, work and play. Mr. Stephenson went on:

"If the 1946 Act is studied it will be quite clear that decisive action is contemplated; action which is already being taken to start the building of the first four towns of the Plan for Greater London and the first town of the Plan for the Clyde Valley. The need to build these towns has been clearly demonstrated by regional plans. They are essential parts of schemes which have as main objectives the improvement of living and working conditions of populations in large congested urban areas. The new towns are not being built to satisfy some theoretical whims. They are the immediate practical alternative to the further building of monstrous suburban extensions which in the words of the Minister, 'have largely failed in their purpose of providing a better life for their people, and have almost invariably become dormitories consisting of members of one income group with no community life or civic sense'.

"There are critics who say that we need build neither new towns nor suburbs; we should reconstruct the old towns and re-house all the people in the existing built-up areas. Even if this were possible and desirable in the long run—and I say it is not desirable—it would be quite impossible as a policy in the next few years."

Mr. Stephenson then discussed in detail and commented on the procedure to be followed in the creation of New Towns. He then said:

"To build a new self-contained town for a population of 50-60,000 (Gloucester, Lincoln and Worcester have populations of this order) will cost, on an average, 3 to 4 million pounds per year over the ten year period. In other terms one can say that the labour force required will average between 3 and 4 thousand men over the ten year period. Peak expenditure (say at the fifth year stage) may well be about £7 million in a year when the labour force would be over six thousand men strong. Many agencies and possibly hundreds of contractors will be at work on the site. The organisation required to carry through the overall planning will have to be efficient, versatile and balanced. The administrative technical and clerical staff employed by the corporation will number somewhere in the region of 200. If the corporation acts as a general contractor—and it may have to do this if the contracting with its many problems of labour and material supply is to be properly co-ordinated—it will, of course, employ many more.

"Under a chief executive officer the corporation will have to establish several executive arms. For convenience I put them into three main groups. First there will be the administrative and financial; second, the technical; and third, the construction group.

"There is little precedent in this country for such an organisation; the next few years will be a testing time. Pre-war planning has only a remote relation to the kind of procedure required. The nearest parallel is perhaps the large-scale operation conducted during the war when ordnance factories and hostels were built in record time. Then special organisations, including hundreds of technicians, were established. If we really want to see a fairly exact parallel we have to look at the Tennessee Valley Authority and the way it works. It is a public corporation established to carry through a very large-scale development programme.

"One of the first steps a Corporation may take is to set up an information office on the site. From the earliest stage it is essential the public should be kept fully informed of the decisions and actions which are being taken; public opinion will also have an increasing effect on the character of the development.

"The Corporation must quickly establish the principles and main lines of a Master Plan. This is no easy job—heaven only knows what will happen if an abstract geometrician, masquerading as a planner, is let loose on the territory. A thorough-going survey is an essential pre-requisite. An exact knowledge of the site and the many activities on it will help shape the plan into a workable instrument ready for the action stage. For

example, the majority of the land will be in farms, and they should not lightly be disturbed and unsettled to make a planners' holiday."

Reconstruction

Mr. Thomas E. North [F.] in a paper on "Reconstruction" said:

"In spite of the enormous destruction in many large towns consequent upon the war, the resultant cleared areas are invariably so sporadic and limited in size that the implementation of plans for reconstruction is an extremely difficult task. This aspect is perhaps not apparent to the layman, but it is nevertheless real, and the farther one proceeds with a scheme the larger becomes this bogey."

"However, this is an obstacle to be overcome together with the many hurdles in our way, and it is not my desire to suggest that we should abandon our long-term schemes in favour of piecemeal development. I see a dangerous tendency towards this latter course, stimulated by the pressing urgency of accommodation of every description, but it is our duty as planners to resist this to the utmost."

"There is no gainsaying that the man in the street is to-day more planning conscious than he has ever been, and ready to accept the planners' theories and schemes, but unless he sees three dimensional progress in the near future, he will lose faith and we will lose the splendid opportunities now open to us. Therefore let us see what appropriate steps can be taken to prove that our work can advance beyond the paper stage."

"There must be an outline development plan for the area under consideration to supplement the regional plan. The preparation of this plan is essential in the early stages both for Interim Development control and in order that the Minister might be supplied with relevant information when it is necessary to consult him on any matter dealt with under the 1944 Act in connection with reconstruction."

"It is suggested that the outline plan should show clearly the residential and industrial zones and that an early decision should be made on neighbourhood units in order that detailed consideration can be given to such matters as the provision of facilities for education, health, etc."

Industrial Development

"The two features which are uppermost in my mind when reflecting on negotiations with industrialists are, firstly, the most ready interest and co-operation shown by the majority in Town Planning, and secondly, that profits are made in spite of the working conditions. I think the former is governed by the latter and they can see the greater possibilities under better conditions."

"I have been most interested in visiting many factories where the managers have been keen to show me their various processes, but invariably they have been apologetic about the antiquated layout of their plant and premises. So many have expanded piecemeal by periodic acquisition of adjacent small dwellings and so few have room on their existing sites to build afresh whilst maintaining production. Many have been unable to expand although their trade warrants additional space, and the possibility of leasing land from the Local Authority acquired under the new Act has a great appeal. Generally, they agree with zoning and readily admit the evils of incorrect siting."

Provision of Schools

On the question of providing schools under the Education Act of 1944, Mr. North said education authorities should give every consideration to preparing their rebuilding programmes on a neighbourhood unit basis. They could adopt one of two alternatives:—

- (a) To plan their educational regions with no regard to Town Planning in neighbourhood units, merely considering the educational tradition of the district as regards the catchment area of schools and the feed from primary to secondary schools, or
- (b) To make the neighbourhood unit a more or less self-contained area with two or more primary schools feeding a centrally placed modern school.

The latter was worthy of consideration for the three following reasons:

- (i) The neighbourhood unit was originally fixed at 10,000 with full regard to educational needs.
- (ii) Neighbourhood unit planning should help educational planning.
- (iii) Educational planning should help neighbourhood unit planning.

Social Provision

In working on the re-planning of West Ham he said he had conducted investigations into a number of matters including the ratio of "pubs" to population. It was with trepidation he suggested one "full" licence per 1,000 persons and one "off" per 2,000 persons.

As regards the provision of shops, development of a New Town should not present undue difficulties but reconstruction was more problematical. He suggested the following:

- (1) That shops should be in groups containing a minimum of six.
- (2) The ratio should be one shop for 100 persons where the shop is calculated to have a floor area of 460 sq. feet.
- (3) In a neighbourhood unit of between 9,000 and 11,000 persons there should be a shopping centre of not less than 60 shops, with five or six secondary groups.
- (4) That these centres should cover all day-to-day and some weekly requirements.

On the provision of Health Centres Mr. North said:

"The unit of population which can support a health centre depends on the type of centre envisaged, and while the experiences of Finsbury and Tottenham suggest one health centre for 20,000 people as a working basis in an urban area with good transport facilities, the Bristol standard is approximately one per 10,000."

It may well be that the above standards will be varied by the provisions of the National Health Service Bill, which places on the shoulders of the local health authority (that is the County Council or the County Borough Council), the obligation to provide facilities in a health centre for general medical, dental and pharmaceutical services, and any other services which the local health authority are normally empowered to provide, and in addition, facilities for the dissemination of information on health matters by means of lectures, films and displays.

"This, therefore, raises the question—what must now be included for these additional services? Obviously, consulting rooms for general practitioners and specialists, treatment rooms, and lecture or demonstration rooms. Bearing in mind that the unit of practice is not the general practitioner but a team including doctors, nurses, health visitors, home nurses, specialists, pharmacists and dentists, with many capable of interchange and deputisation, it is the team which will dictate the size of unit that can adequately be served. This, I submit, will have as its basis between 8 and 12 doctors each handling 2,000 patients, and the population unit will therefore be 16,000-24,000 patients. A further consideration is that regular patients attending the health centre should not have to walk more than half a mile."

Housing

After discussing public libraries and places of worship Mr. North came to the question of housing. This represented a major problem in most of the older built-up areas where there was a large proportion of obsolete development, unattractive to the best types of young and enterprising families. Not only were the houses out of date and out of repair but the streets were depressing to the last degree and many were without any garden amenities whatsoever. That this lack of trees and gardens and of the refreshment to the spirit offered by the sight of nature at work had been the direct result of the type of housing development and not of the type of tenant had been overwhelmingly demonstrated by our temporary housing where flowers, grass and gardens had appeared overnight.

In the past slum clearance and other similar schemes had generally meant that as small a piece of land as possible had been

acquired and the displaced persons had been re-accommodated thereon at a high density. If this procedure were to be generally followed to-day it might very well mean that certain accidentally available pieces of land would be over-developed now and the remainder would in due course either have to be used largely for open space or for housing in excess of that contemplated by present town-planning proposals. Such sporadic development would produce a final long term result as chaotic as the unplanned development of the past.

Rural Communities

Mr. A. W. Ashby, of the Agricultural Economics Research Institute, Oxford, in a paper on "Planning for Rural Communities," said:

"Physical planning is only a part of the current flow of economic and social events and forces, and not even a dominant part. Although it has legal sanctions, and such as may be enforced, this alone does not prove its pre-eminence. Many rigid plans must become encumbrances on economic or social progress. There has been much planning in the past—by individuals, corporations and public authorities; and planning both promotive and restrictive. Some of these plans failed in their objects, others were successful. While the results of some successful plans are still of social value, there are others which we now regard as encumbrances or worse. The current planner cannot know what the economic and social forces of the future may be; he cannot know what the scientist, the technician, the industrial organiser, the social idealist and promoter may think and do, or what they will offer society and it will accept. While we must plan, we should plan for the least necessary rigidity and as far as possible for fostering the forces of economic and social progress.

"Many of our villages have had basic plans made by or on behalf of feudal lords and later of landlords. The sites of most, if not all of them, seem to have been fairly deliberately chosen. Those which were not planned were not built without thought or without deliberate selection of general situation and sites of specific buildings. Doubtless the sites of many villages now seem to have been chosen haphazardly, and their buildings dropped accidentally if not perversely. But the siting of villages and of buildings within them was done for reasons which seemed good and sufficient to those who chose the sites. Even if they only 'grew,' they did so as a result of a complex of forces—geo-physical conditions such as of water supply, of shelter, of defence, and access to means of communication; agricultural conditions; forces arising from property rights; the technical means and the economic resources available when general siting and building was done; besides some forces of more special character.

"Reasons for siting have now changed; technical means of modifying or controlling some geo-physical conditions have vastly increased and improved; means of transport have radically changed and with these changes needs have increased; agricultural methods have changed to some extent but perhaps show indications of far greater changes in the near future.

"There are agriculturists, economists and physical planners who would modify and in some areas radically change the layout of fields and farms; possibly making radical increases in farm acreages; and in many cases re-equip the newly laid-out holdings with buildings of different character from those now in use. And there cannot be any doubt that they have sound and adequate agricultural and economic reasons for their suggestions. There have also been suggestions from people concerned with public health and other aspects of social welfare, that many villages require re-siting, with reference to water supplies, sanitation or other health conditions, and with reference to transport and other physical and social amenities.

"At present there seems no possibility of static economic and social organisation in rural England. While there may be a choice between progress and decay, most of the signs and trends are of progress. But progress will involve some important economic and social retirements with which physical planners must be concerned."

After discussing the primary social requirements of neighbourhood groups, the question with which the physical planner was directly concerned, Mr. Ashby said that the fundamental requirements of rural reconstruction were housing, piped water supplies and electricity. Rural reformers might cavil at the failures of the authorised distributors of electricity, mainly capitalist enterprises; but in the near future they might have a deeper grudge against the water supply authorities which were mainly public authorities. On housing there could be no doubt about the urgency of an increase in supply. There were three primary principles in social planning in respect of houses which should be built where there were occupational opportunities or where cheap and quick transport would keep inhabitants in touch with them; all houses should be sited in relation to farms, villages and small towns where the prospective occupiers wished them to be placed; and that houses themselves should be the best possible within the resources of the prospective occupiers and the social resources allocated to them. Consideration of these three principles would lead to the firm conclusion that villages and houses are intended to be lived in rather than looked at. Undue consideration of preservative objectives, whether the preservation of the "character" of a village or of a type of local architecture, might be a social disservice. He went on to say:

"Preservation and even creation of æsthetic qualities is important, but for people who have only small resources at their disposal, adequate and convenient living space, and appropriate internal and external equipment, are more important than external appearance. This is not a plea for shoddy work or for bad manners in building, but for close consideration of the relative importance of the different types of values obtainable at a given capital cost. When certain preservative objectives are set for housing, they are set less for the advantage of the occupiers than for that of society at large or certain sections of it, often more particularly the latter. The cost of preservative objectives should be socially borne and these objectives should never be adopted to the deprivation or disadvantage of the people who need the houses."

Finally, Mr. Ashby said that the main question in respect of the agricultural sections of rural communities was that of future farm organisation, the scale of farming operations, and the layout of farms. Only one condition seemed certain, namely, that farm organisation and processes must be such as would lead to an increase in production per person engaged. One great question in respect of rural planning for progressive promotive purposes, was how much capital would be provided and who would provide it; how much labour and materials would be made available for rural, particularly agricultural improvements, and who would organise and control their uses.

Outline Plans

Mr. E. H. Doubleday (County Planning Officer, Warwickshire) in a paper on "Outline Plans" said that a plan which gave broadly, subject to detailed modifications, the lines of future development as a first stage was a promising line of approach to the solution of the problem of how to get out a plan reasonably quickly. Such a plan would be without undue rigidity and sound in its fundamental conception. It was not unreasonable to assume that there was a close connection between any "development rights" scheme which the Government were contemplating and the kind of plan which was capable of being applied speedily and efficiently to the whole country. What form this plan would take was not easy to decide, as obviously a plan prepared for a large urban area would differ in many respects from proposals designed to control development in the countryside.

The name given to such plans varied widely. "Reconstruction" or "Redevelopment" seemed to be the most frequent. They had at least the merit of simplicity and directness, which hardly applied to the rather omnipotent and inflexible sounding term "Master Plan."

When one considered the areas where plans had already been commissioned by the Minister, it appeared that little of the

national framework remained to be completed. This achievement would be a milestone in planning history which would be universally welcomed. It was, however, fundamental to the detailed development of the different regions that the implications of the various regional outlines should be widely appreciated and this raised the question as to how the co-operation of the general public could be enlisted.

The size and character of the different regions quite clearly dictated that the outline proposals should be drawn upon the broadest basis and should deal only with main principles under certain well-defined headings, namely: Physical Character of the Region, Land Fertility and Classification, Distribution and Growth of Population, Location of Industry, Communications and Historical Growth and Development.

Passing from Regional Outline Plans to Area Outline Plans, Mr. Doubleday said that great responsibility rested on executive joint planning committees. In the preparation of the Regional Outline Plans the joint planning organisations should be active participants from the start. The technical committee set up in the case of the Greater London area was an interesting precedent.

The term "Local Outline Plan" applied to the kind of plan prepared by local authorities for "blitzed" or "blighted" towns. There were already many examples of this. One thing that surprised him was that public inquiries, held by the Ministry, generally confined themselves almost entirely to the amount of compensation to be paid under the 1944 Act. There seemed to have been surprisingly little comment upon the merits of the outline plans themselves.

Trading Estates

Lieutenant-Colonel M. D. Methven read a paper on "The Place of Trading Estates in Planning." Col. Methven is Director of the North-Eastern Trading Estates, Ltd., and for the past ten years he has been chief executive officer to the organisation which created and which manages the Team Valley Trading Estate, and had general responsibility for converting the R.O.F.s at Aycliffe into a trading estate and which created industrial sites at four other places in the neighbourhood.

Col. Methven said:

"In planning a new town, or replanning an existing one, the existence of a large trading estate developed to the full and offering employment to 15,000 to 20,000 workers secures to the planner such advantages as arise from concentrating the major proportion of the town's manufacturing activity. This means that the movement of goods, both inwards and outwards, and the transportation of employees to and from their homes, is concentrated at a focal point, and such movement is clearly and easily traceable, whereas with industrial activity scattered movement of goods and personnel must be far more diffuse and difficult to trace. By correctly siting the estate, ease of transport to and from it may be assessed, together with increased facility for arranging the main traffic arteries and as a result relief from congestion in town centres.

"Thus also such problems as the relationship of manufacturing activity to dormitory area, to rail and road systems, to harbour and dock facilities and to retail distribution become simplified and should, therefore, become easier to handle."

Expansions

Col. Methven said that if planners considered that the size of towns could be controlled, no one had yet suggested that a limit should be placed upon industrial growth. In fact, industry had proved to resemble a living organism in this respect, never really static but continually growing or contracting. Experience had shown that few industries, and then only industries of very considerable size, could have much conception either as to their rate of growth or their ultimate size. This was especially true of new industrial developments starting from small beginnings. A well-planned trading estate could, and should, make provision for the needs of expansion by:—

- (1) Maintaining a low density of coverage and a set portion of expansion space specifically allocated to all new buildings.

- (2) Offering the facilities to a manufacturing firm to transfer to new premises a short distance away under the easiest possible conditions of change.
- (3) Preserving inviolate open space and amenity for the enjoyment of employees and employers alike on a communal basis.

A modern trading estate of good size, with a wide diversity of manufacturing activity, could forecast the demands industrialists were likely to make for public utility services and for the needs of travel and transport of goods. Where such an estate was capitalised from the public purse it was possible to make long-term provision for all essential services. By laying down a backbone of gas and water mains and electrical cables of adequate capacity, it was possible to anticipate the needs of industrialists, to plan the distribution from the backbone mainage so as to avoid interference with roads or buildings. Thus industrialists were relieved of restriction or embarrassment due to shortage of any of the essential services, whilst the public utility companies could watch the growth and development and make their plans in good and sufficient time to ensure that shortages did not occur. The same could be done with rail transport, and a backbone of railway communication could be laid down with the advice of the railway company to ensure that the growing volume of rail traffic did not embarrass the railway company.

Road transport was taken care of by ensuring that the estate was located with easy access on to main traffic arteries in all directions, and a generous internal road system, complete with access roads to factory doors, was provided, thus keeping goods traffic from parking on Class A roads of the trading estate and also avoiding heavy and slow-moving traffic parking in the streets of the town or even passing through the congested parts of the city.

Bus companies had maintained that a grouping of employees much above 9,000 in any one spot created a difficult problem for their companies at the peak hours. Much could be done on a trading estate to ease this problem by a staggering of hours so that factories did not all start at the same time. Within the estate itself much could be done to speed evacuation by correct siting and design of bus stations.

Amenities

There was a growing tendency to associate with all big industrial undertakings amenities and facilities for the benefit of the work of the undertaking, its staff and its employees. Such things as communal feeding, educational clubs, staff clubs, weighbridges, transport specialists and many other items, part industrial, part social, might be within the compass of the largest industrial undertakings, but smaller and small undertakings must find many of them grossly uneconomic. A trading estate could provide such amenities on a communal basis and a specialist administrative body, through associations of employers and employed, could determine when any particular amenity or facility became necessary, and could either arrange their provision on a communal basis, could stimulate a separate individual enterprise to provide them for the geographic grouping of industry, or could itself provide them as a self-remunerative service.

Light, Air and Healthy Conditions

Col. Methven said that the administrators of a trading estate, which was a non-profit earning organisation, should be strong enough to control all industrial activity so that it is carried out under good, clean and healthy conditions. The design and layout should provide generous road widths and inviolate open spaces. Light and air, avoidance of smoke and smell should all be safeguarded. Where one individual industrialist would be limited in his information as to the best factory design, layout and construction, the trading estate organisation, dealing as it does with very many different industrialists, architects, builders, etc., had much wider experience and could be constantly increasing its information as to the very best practice. A result inherent in the grouping of industries on one estate was the steady growth of knowledge and experience from the contact of

one industry with another. The standard of pleasant, healthy and efficient conditions tended to rise from the example of the best achieved by any one industrial unit. Where one industrialist or group of employers arranged an attractive frontage by use of flowers or stone decoration, others tried to emulate it.

Bearing in mind that in a very high percentage of industries rent was but a very small percentage of turnover, there seemed little justification for economising too severely on the design and appearance of factory premises. The difference in rent due to the extra cost of making premises aesthetically satisfying could only be a minute percentage of the cost of the article out-turned by the industry.

Attractively designed buildings which were aesthetically satisfying as well as functional, correctly designed in relation to such items as parapet heights, well sited with a view to open space and broad general appearance, constructed of harmonising material and of generally harmonious architecture, all these factors tended to produce an estate which had a selling value for even the most hard-bitten industrialist.

Industrial Linkage

He wished to express the importance of industrial linkage, by which he meant the relation of the industries in a trading estate to the natural products of the region and of any one industry to its neighbours. To-day, in a seller's market, the problems of economic production tended to fall into the background, but in future years a buyer's market was sure to return. When that time arrived this country would have to depend on such raw materials as she had, but more on her craftsmanship, her technical skill, her administrative ability and thus her economy and perfection of production. Well-established industrial linkage would tend to withstand successfully the storms of competition arising from trade cycles. It was not suggested that such linkage need create monopoly; in fact, through course of time it was probable that the reverse would happen.

The trading estate movement might well be used as the instrument for an, entirely new technique in central planning whereby the whole economy of a trade, if not a country, might be influenced by sound industrial linkage.

Most industrialists welcomed having the administrative problems connected with building removed from their shoulders on to those of a specialist organisation; they also welcomed the provision and control of communal amenities and services. The existence of a local association of industrialists in a trading estate ensured strength in meeting public utility companies, rating authorities, educational authorities and others, even to representation on the floor of the House of Commons, through the local M.P.

The Worker's Viewpoint

The worker was obviously going to attach considerable importance to conditions of work and was the first to appreciate the benefits of a light, well-warmed and substantially constructed building of adequate size and ventilation. He also appreciated the diversity of opportunity and the opportunity for contacting other trades or sections of his trade, all of which was more open to him on a large estate than in an isolated concern. He would meet the workers of other establishments in communal centres, on public transport and in inter-factory sporting and social events. It was likely that a horizontal grouping of workers would take place, due to the activities of shop stewards of various unions between trade and trade. This enabled the worker's viewpoint to find expression, not only from a union standpoint but also from a peculiarly estate point of view, on such subjects as shopping facilities, public transport, recreational facilities and the like. The worker was quick to realise that as an employee of a single firm his voice might not be powerful, yet as one of a horizontal group with several unions in the background it was possible to bring to his demands powerful support for all reasonable requests.

THE SCOPE



OF THE A.B.S.

A subscriber to the Architects' Benevolent Society has pointed out that many architects and assistants are under the impression that the A.B.S. is concerned mainly with architects in private practice and their assistants. This simply is not true. Taking the question of assistants first, it is definitely stated in the Society's first Bye-law, which appears on the title page of the new Report, that the Society helps architects' assistants; in fact during the last twelve months many grants have been made to assistants and their widows, some of the former having been employed by public authorities. For example, an architectural assistant in a Government department, suffering from a fatal illness, received £150 from the Society during the six months preceding his death; this enabled his wife and little son to keep going until, after the husband had died, the widow was able to obtain work.

In any reference to the Society and its work, the term "Architect" is used to indicate any qualified man, whether principal or assistant and whether in private practice or public appointment. This distinguishes them from purely clerical members of architectural staffs, who are not eligible under the Bye-laws. It is true that in the past the majority of architects who have been helped have been private practitioners, but this is due mainly to their being elderly and dating from a time when there were fewer architects in public employment than at present.

There also seems to be an impression among some architects that the existence of a State-run benefit scheme will render

unnecessary the existence of such bodies as the A.B.S. This is by no means the case. Any State-operated scheme must be controlled by regulations, devised by the Treasury. These regulations have gaps which may cause hardship in individual cases; that of the architectural assistant in a Government department, mentioned above, is an example. The files of the A.B.S. contain numerous cases of hardship, particularly to widows and children, which existing official pension and benefit schemes have failed to meet. Such cases are bound to occur with the very best of State schemes. The Bye-laws of the A.B.S. are drafted in wide terms which place first the need of the sufferer, quite independently of such matters as his having filled in the correct form at the right time, or of his having failed to do so. The recipient of help from the Society is often a relative of the architect and who is suffering by reason of his illness or death. The A.B.S. has saved many a man and woman from want and even from utter destitution; it has helped many a promising child to complete his or her education. As Mr. Goodhart-Rendel pointed out in the August JOURNAL, the Society suffers from being unable to publish its records. Were it able to do so, doubting architects and assistants would realise that the false impressions we have discussed above are quite groundless. Finally, the Society is not able to meet all the requests made to it. It needs greater funds. Need we say more?



THE CLASSIC ARCHITECTURE OF SOUTHERN TURKEY

John Duncan Wylson [A.]

The stonemasons' yard at Baalbek (Lebanon) is situated alongside the south wall of the platform of the great temple.

Contrary to usual belief, there is still much classic architecture not yet excavated, measured, restored and preserved as a source of income to the district where it is situated; this is particularly so in the Middle East, and it is hoped that, while the architectural gaze of the majority may be fixed firmly, if despairingly, ahead, there may be some to whom a short account of the considerable remains in a part of Southern Turkey, which I was able to visit during the war, will be not uninteresting.

This part of the Eastern Mediterranean coast, along with Anatolia, was one of the granaries of the ancient world and therefore an important Greek and Roman colony long before it became an integral part of the Eastern Empire; its architectural interest is enhanced by its having seen a continuous and reasonably coherent civilisation long after the Western Empire had collapsed. Nor does the interest lie solely in classic architecture, numbers of extensive crusader castles—fine examples of European mediaeval architecture—and their Armenian counterparts—remain either in quite good repair or at least as they have fallen through earthquake or decay, visited now by none but goats.

While Strabo, in classic times, described most of these cities, the last survey of any importance in recent times seems to be that of Captain Beaufort who, in the early nineteenth century was commanded by their Lordships to survey the coast. Captain Beaufort was also an antiquarian and his book "Karamania," published in 1812, not only describes the architecture then extant, but also records the difficulties besetting any traveller in a country still holding an unreasoning hatred and contempt for the "giaour" (infidel).

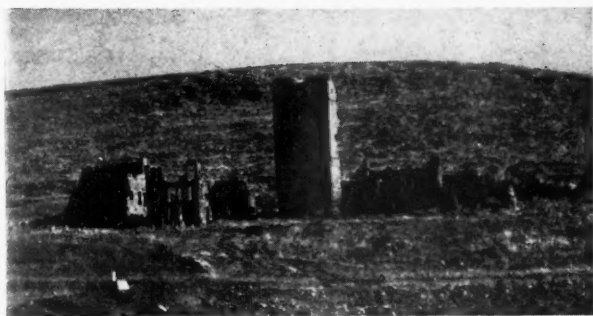
He relates how the Captain of a French Frigate, also an antiquarian, put into Anamur, and called on the Pasha, not only for the usual call and interminable coffee-drinking that courtesy demands, but also to request permission to visit the mediaeval castle (then, as now, almost intact). The Pasha, orientally polite and charming, explained that while nothing would give him greater pleasure than to show the Captain over the castle, it was beyond his powers so to do, for such castles were Turkish fortifications, and there were express instructions from the Sublime Porte (Istanbul) that, as such, they were forbidden to foreigners. The Captain was a determined antiquarian; time

did not press; he returned to Smyrna and set the slow diplomatic machine in motion to obtain a signed permission from the Sublime Porte to visit Anamur Castle.

Many months later, armed with the signed authority, he returned to Anamur; the Pasha was delighted to renew an old acquaintanceship over the interminable coffee-drinking that courtesy demands; he was also delighted, outwardly, to arrange a visit to the castle, and in a few days the party, headed by the Pasha and the now enthusiastic antiquarian Capitaine de Frigate, approached the gates of the Castle. Here the party paused; the Pasha turned to the Captain. "Effendim," said he, holding the permission in his right hand, "This is a firman



FIG. 2. A cap for the great temple in the stonemason's yard at Baalbek prepared for sculptor.

FIG. 3. *Remains near Bab-el-Hawa.*

from the Sublime Porte; its authenticity cannot be questioned, its instructions must be obeyed implicitly." He held the firman to his forehead in assurance thereof. "This firman expressly allows me to take you into the Castle, but it contains no instructions that I should let you out! Under these circumstances, do you still wish to visit the Castle?" That evening the disconsolate Capitaine de Frigate sailed away again.

The Turk does not alter. To-day, a traveller, attempting to visit places of interest off the beaten track, may be arrested

FIG. 5. *Wall (probably of theatre) at Issus.*

by the gendarmerie and incontinently thrown into gaol, from which his emergence will depend upon broken-down communications with the nearest correct authority; a traveller, speaking Turkish, and carrying a vesica indicating him to be a V.I.P., will be met by the same gendarmerie and entertained to the interminable coffee-drinking that courtesy demands until it is too late to visit anything; be he the same and carrying a camera or sketch book, he is unquestionably a spy (often a not incorrect assumption), and the courtesy is even more interminable; if he has a "firman" to take photographs or sketch or measure, it must be confirmed, or is from the wrong authority, or omits some necessary part. Add to this incredibly poor roads

FIG. 6. *Aqueduct at Issus.*

and transport difficulties, and I trust I may be excused the scantiness of photographs and the incompleteness of the survey of the architecture of which I write.

The most interesting route into Southern Turkey is by road from Haifa or Beirut through Syria or the Lebanon, whose antiquities are fairly well known though ill recorded; Baalbek has a perennial interest as a major engineering work, but it is surprising that no comment has been made on its stonemason's yard complete with mason's models, rough turned column bases and corinthian cap prepared for the sculptor. Although not in Turkey, this is illustrated. (Figs. 1 and 2).

The Hatay, the most southerly province of Turkey, bordering Syria, was re-ceded to Turkey, just before the war, by the French, to whom it had been mandated between the two wars; during this period considerable investigations of Roman remains in and around Antioch were made, notably by Lieut.-Colonel Jacquot of the French R.E.'s, and American archaeologists; apart from those in Antioch and its immediate environs, the Seven Cities at Bab-el-Hawa and the canal at Suadiyeh are worth particular mention. Like so much of the Roman work in Turkey, the remains of the Seven Cities are examples of simple building

FIG. 4. *Bab-el-Hawa. Buildings on the left of the tower seen in Fig. 5.*

for purpose with very restricted use of the orders or architectural enrichment; walls are ashlar in local stone with fine joint and no mortar; the length of the road remaining, about 12 ft. wide, is the same, in blocks about 24 in. by 12 in. by 9 in., still with an excellent surface. The illustration (Fig. 3) shows one of the more extensive remains. This building is planned about a central tower, with on the one side a four-storey block built around a courtyard, shown in greater detail in Fig. 4, and on the other a large apartment of which only an exedra remains; the four-storey block appears to have been a series of rooms entered off open balconies; housings in the stonework indicate that floors were wood; the tower is some 40 ft. square and 120 ft. high. Earthquakes are reported to have caused most of the destruction and other remains hereabouts indicate that the ground level is now some six feet above its original level. As these remains lie in the no man's land between the two countries, an examination of those off the road is somewhat hazardous for, because of the constant smuggling that goes on, it is customary on both sides to shoot first and ask one's business later. It is remarkable that there is no sign of an aqueduct or water supply in what is now a particularly arid district.

The canal near Suadiyeh has caused some speculation. (Figs. 7 and 8.) Antioch is situated some miles inland on the banks of the Orontes which, in Roman times, cannot have been much more navigable than it is now, but then, as the second city of the



FIG. 7. Canal at Suadiyeh. View looking down the canal from the entrance to the tunnel. The bridge over is an aqueduct served by a channel cut at the side of the canal and which is seen overflowing on the left of the picture.



FIG. 8. Entrance to the canal tunnel at Suadiyeh. The water channel (Fig. 3) can be seen cutting along the right-hand wall. The faint light in the centre of the tunnel filters down from the opening where the steps occur.

world, Antioch must have depended largely on seaborne trade; one would therefore expect to find the remains of a considerable seaport on the coast; these are found near the village of Suadiyeh. As is common to the Roman ports in this part of the Eastern Mediterranean, the harbour or harbours have silted up considerably, but, allowing for the rate of silt, there can have been little flat land, in Roman times, for warehouses, port buildings, etc.; the sea would have washed the foothills of the mountains where lie the harbour remains. From here the canal runs inland and uphill for a length of more than a mile, rising to perhaps 150 ft. above sea level (Fig. 7); it is hewn from the rock and is about 30 ft. wide and averages 70 ft. deep, the last 300 or 400 yards of its length is a tunnel about 40 ft. high (Fig. 8), opening at its head into the river which serves it; here a plaque commemorates the fact that Titus and Vespasian caused it to be made; clearly, therefore, it was considered an important engineering work. A watershed, or what might be a slipway at one bank, side galleries half way up the canal wall, and entrance steps to half way down the wall of the tunnel, indicate that this canal was designed to take known depths of water. This, and evidences of buildings on its banks, suggest that this may have been a ship canal with system of lock gates, and warehouses, etc., alongside, though I have never heard this theory advanced; if it were so, it must surely rank as the eighth wonder of the world; such a work would certainly be commensurate with the importance of the port of ancient Antioch, the remains of whose lighthouse is now a Turkish coastguard station, whose inmates are as adept as the gendarmerie at the interminable coffee-drinking that courtesy demands!

From Antioch the road runs, as in Roman times, over the Belen pass into Iskenderun (formerly Alexandretta, ancient Myrianchos ud Issum) and from there into the plains bordering the North-eastern shores of the Mediterranean which is the Turkey of history. While there is little extant Roman architecture in Iskenderun and its environs, many carvings, architectural features, pottery, large earthenware wine vats, and mosaic pavings, are dug up from time to time to adorn the gardens of to-day; but most of it is clearly of the later Roman Empire; the little harbour at Rhosus (now Arsuz) still exists. The road from Iskenderun to Missis, Tarsus, and Mersin, takes a different route from the old Roman road through the plain of Issus which still exists, and the first remains along this road are those at Issus. Here there are the aqueduct (Fig. 6) and the raised walls of what appear to be the theatre (Fig. 5) and many remains of other buildings, the identity of which only excavation could establish; walling is concrete, faced with opus incertum or ashlar in lava, the local stone, columns, etc., are of stone, probably imported from the Antioch district; the quality of craftsmanship is high. The aqueduct is of normal Roman construction. Of the theatre, the seating is either destroyed or buried, but the shape of the auditorium is still clear; there is no evidence of an architectural stage background, and it is not unlikely, since the craftsmen in this Roman colony were largely Greeks, that it was built on the Greek pattern. Therein lies one of the interests in this area of Southern Turkey; in contrast to the Antioch district, there appears to have been no general use of the Roman language, any inscriptions are in Greek, whereas in Antioch they are in Latin; the mountain ranges of the Alma dag and Kizil dag, rising to some 6,000 feet, (over which is the Belen pass before mentioned) then, as now, would appear to have constituted quite a strong racial barrier. In the hinterland from Issus there is another Roman town of which the theatre and street of columns remain; its name, however, appears to be lost.

The road runs into the low hills some eight miles from Issus and here there is a Roman gateway (Fig. 9); whether this was an arch or a pair of defensive bastions it is difficult to say, the construction is similar to that at Issus but with bonding courses; the unweathered set-backs of the sides which, to-day, constitute to some a trait of "modern" architecture are worthy of note.

Again the craftsmanship is high, by contrast to the road itself (not illustrated), laid in rough random blocks, and to the bridge (Fig. 10) also of lava. None of these towns and settlements in the plain of Issus have remained the site of human settlement. Missis and Tarsus, however, are still Turkish towns, so it is not surprising that little remains of their Roman glory but a triumphal arch in considerable decay at Tarsus, and a bridge which appears to be of Roman origin at Missis (Fig. 11); the river by which Caesar and Cleopatra are reported to have visited Tarsus is no longer navigable; nor is there talk of any extensive remains between Tarsus and the sea.

Mersin itself is the largest port on the south coast of Turkey but does not appear to be of ancient origin; a few miles to the West of it, however, are the ruins of Pompeiopolis. Captain Beaufort records an aqueduct, theatre, harbour, street of columns, and other ruins; now, however, while the contours of the terrain indicate the probable sites of various buildings, little of the aqueduct and only a few of the street columns remain (Fig. 12) and more than half the harbour is buried in sand dunes. The columns are interesting for the corbel stones to take statuary, which in living memory existed; the detailing of the corinthian capitals shows that these buildings were erected before the decline of Rome, the carving being as fine as a rather hard, coarse stone permits.

Further West of Mersin the road deteriorates and some eighty miles along it lie the extensive ruins of Corycos. It is reputed that in Roman times this was a city of some 300,000 (*sic*) inhabitants, but now, except for a few goatherds, it is deserted. The aqueduct, parts of which are shown in Figs. 14 and 16 entering from the East, is extensive and runs in separate lengths across valleys, the water channel about 18 in. by 18 in. that joins each length is cut in the rock of the hills; this channel can be seen in Fig. 16. The total length of aqueduct and water channel is some eight miles; for the most part it is intact except where the road crosses the channel or the aqueduct has been pulled down to make the road (Fig. 16). It is interesting that this aqueduct appears to have been repaired in various ages, *e.g.*, the pointed centre arch in Fig. 16; indeed, it is remarkable that the buildings of Corycos range from Roman to Byzantine, indicating that this continued as a flourishing city at least up to the tenth century A.D.



FIG. 9. Gateway to the plain at Issus. The road has been made up (!) in more recent times.



FIG. 10. Bridge on road from Issus to gateway (Fig. 9). The top of the bridge appears to be the original road.

At the East of the city area is the graveyard, which gives an interesting example of Roman mass production. The tombs are of four types, namely: the small mausoleum with centre compartment for bodies and recesses, doubtless for votive offerings, at either end (Fig. 15); the enriched store sarcophagus —



FIG. 11. Bridge at Missis, probably Roman with Byzantine repairs. The centre arch was badly cracked in an earthquake soon after this photograph was taken. The buildings on the right are probably Crusader or Ottoman.



FIG. 12. *Pomphopolis* : street of columns or covered way to port. There is a double row of columns, about 20 ft. apart ; the corbel stones face inwards.

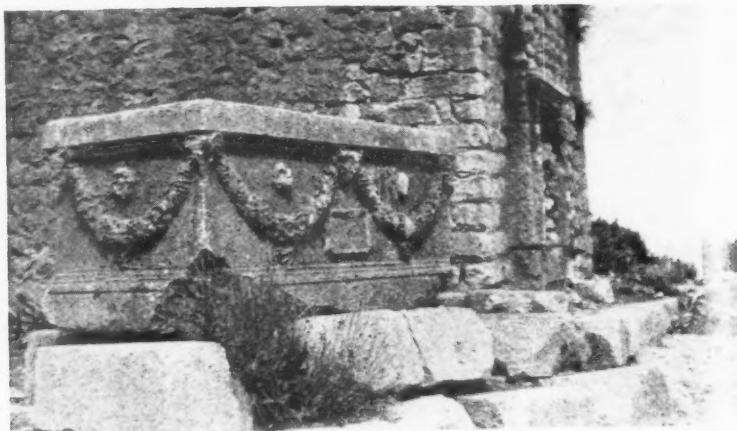


FIG. 13. *Corycos* : a carved Sarcophagus, the lid missing. Behind is a tomb, probably a common one.



FIG. 15. *Corycos* : a mausoleum.

FIG. 16 (below). *Corycos* : the aqueduct. The pointed arch is probably Byzantine repair. An arch has been pulled down to make the road. FIG. 14 (left). Detail of the aqueduct.



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FIG. 18. *Corycos* : East end of the basilica. The apse at the western end has collapsed, but the remains indicate that it was similar. On the left is one of the piers of the side entrance into the aisle.

doubtless with carvings to relatives' own desire—(Fig. 13); the plain sarcophagus (Fig. 17); and the common tombs (Fig. 19); each type is repeated many times and all have been rifled. Not only are these tombs Greek in character but the planning of the graveyard is not axial, the path through the graveyard being a winding path following easy contours; so here again we find the strong evidence of Greek characteristics in spite of the Roman occupation; indeed, many authorities might label the order used for the mausoleum as Greek corinthian. About a mile West, the city proper begins with considerable buildings on either side of the road, some Roman, some Byzantine; the illustration (Fig. 18) shows part of what appears to be a Byzantine church; this has a double apsidal ended basilica plan with side entrances, set in a free standing wall forming aisles, and narthex and, or atrium, for there is no evidence of separation (Fig. 19 shows the East end); as such, it would seem a perfect example of the link between the Roman basilica and Christian church. Except for the clearing of the rubble from the narthex or atrium to give shelter and grazing for goats, this church appears to remain as it has fallen; another building of about the same size stands not far off, also probably Byzantine.

The Roman buildings elsewhere have been largely demolished, but there are the foundations of terraced buildings as well as large free standing buildings (Fig. 21). The method of construction used appears to have been to cut the greater part of the building out of the rock (the land here undulates con-

siderably) and then use the stone cut out for building up; the centurion (Fig. 20) is carved on a wall formed by such excavation. The foundations shown in Fig. 21, about 300 ft. by 150 ft. in area and 25 ft. high with the ground level falling by 25 ft. across the length are known locally as the granary; however, there are water channels around the wall, a corner staircase, and the



FIG. 17. *Corycos* : a plain sarcophagus.

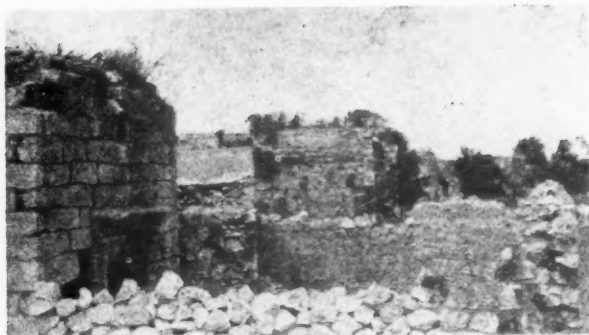


FIG. 19. *Corycos*: common tombs. The rubble wall in the foreground is Turkish work to provide a wind-break for goats.

foundations of four massive piers on one short elevation, and these indicate that this is in fact the basement of an extensive building. In this area only foundations of buildings remain, and the reason for this lies in the extensive crusader castle nearby (now Khorgos castle) whose walls are literally peppered with column drums used as building stones. Doubtless the whole of this part of the Roman city was demolished to provide material for the crusaders. Away from this area, however, it is possible to ride on a donkey—the only comfortable way of traversing the dense scrub and rocks—for some nine hours—past the remains of other Roman buildings, many well preserved; indeed, *Corycos* must have been a grand city, but now

"They say the lion and the lizard keep

The courts where Jamshyd gloried and drank deep."

As far as I know, my friend Mr. Denis Wright, then Consul at Mersin, is the only one who has found the time, energy and patience to circumvent the interminable courtesies of coffee-drinking and obtain a set of photographs of these other remains far off the beaten track.

At the extreme West of the area, some mile or so off the road, approached by a rock path polished by the tread of how many devotees, is the Greek, and later Roman, oracle, the oracle of speech; here are a green and pleasant glade deep in a gorge in the rocks—(Heaven) and a cave thunderous with the noise of a hidden torrent—(Hell), and guarding them, testifying to the facility with which Christianity absorbed Paganism, a charming little Byzantine chapel. Captain Beaufort records that somewhere between *Corycos* and Pompeiopolis there is another oracle, the oracle of humour; time was too pressing for him to locate it,

Fig 21. *Corycos*: foundations of a large rectangular building; the lower part of the right-hand wall is cut from the rock. The tree hides a cantilevered staircase.

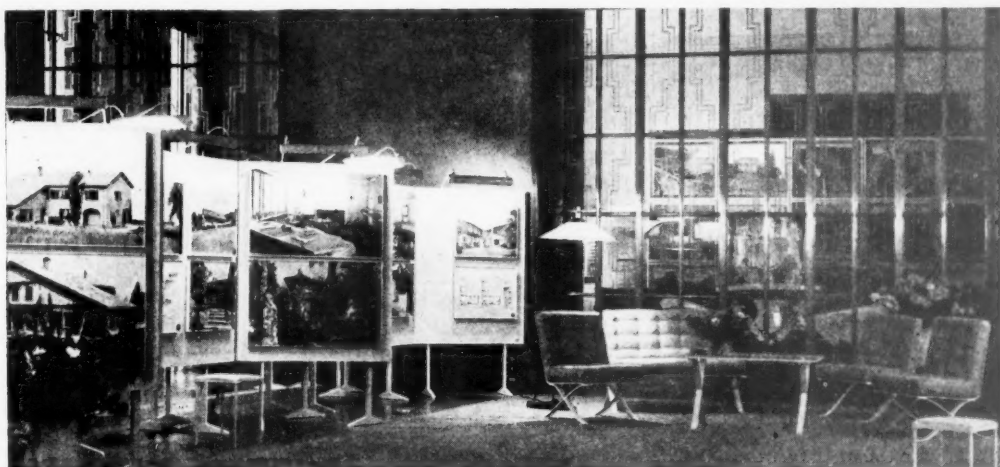


FIG. 20. *Corycos*: carving of a centurion.

however, though a reader of his book might think he had found it. A fairly recent aerial photograph indicated the probable site, but unfortunately an expedition proposed by myself and others to locate it never materialized.

There are many more such remains along the few hundred miles of this coast, but from *Corycos* the road becomes progressively worse; there are many bridges, synonymous in this part of Turkey with obstacles, for they are all broken down and as the Turk will explain "a detour of many miles is necessary to cross them—even on a donkey."

This account I have given of some of the classic remains of Southern Turkey may give the impression that the Turks themselves are disinterested in them. This is not quite so; a few Turks know they exist, and one or two examples of sarcophagi or sculpture have been sent to the museum at Ankara; but to most Turks they are just old; the Turk is interested in his brave new Turkey and oblivious to the contribution that tradition and heritage have made to it; yet, here, in these deserted cities of Southern Turkey is architecture that other countries would treasure as priceless, or at least as a source of interest to archaeologists and income from tourists.



EXHIBITION OF SWISS PLANNING AND BUILDING OPENED AT THE R.I.B.A.

The Royal Institute is rapidly gaining a great public reputation for its exhibitions. "Building Now" attracted a public that was far larger than that of pre-war exhibitions; but the attendances at the Swiss Exhibition have been 50 per cent. greater than at "Building Now" in spite of the immense counter-attraction of "Britain Can Make It." Attendances on Saturdays, for example, have regularly exceeded 700.

While this success is primarily due to the intrinsic merit of the exhibition, some credit must go to the now-established reputation of the Royal Institute as a centre for good exhibitions and not a little to the excellently-planned publicity. This last resulted in a B.B.C. news talk by Mr. Robert Wellington and a featuring by the Press which was surprisingly good in these days of space stringency.

The Swiss organisation has been superb. The exhibition arrived beautifully packed in cases (many architects who saw them said "I wish I could have some of that timber!") and was accompanied by a team of Swiss architects and craftsmen. The leader was Mr. Conrad D. Furrer who rapidly acquired the status of an R.I.B.A. institution. The phenomenal hours which he put into the work of assembly and finishing never for a moment diminished his persuasive charm. The usual difficulties inherent in mounting any exhibition seemed to melt away under his gentle but resolute attack.



The Swiss Minister opening the Exhibition

On the opening night all was ready to the last detail and the party "thrown" by the Swiss to distinguished visitors was a huge success. The President, Mr. L. H. Keay, O.B.E., and the Swiss Minister, Dr. Paul Ruegger, received the guests and the latter afterwards declared the exhibition open.

During the run of the exhibition two Swiss architects, Mr. Hirt and Mr. Kung, have been in attendance and have been kept very busy showing parties round and explaining the exhibits.

Speeches at the Opening Ceremony

THE PRESIDENT: In the name of this Royal Institute I extend a very hearty welcome to you and offer most hearty congratulations to the eminent Swiss architects and all who have contributed to this very wonderful exhibition. I am also particularly glad to welcome to the home of our British architects one who only yesterday in his own country was participating in the great reception accorded to one of the most distinguished of our Honorary Fellows. His Excellency, the Swiss Minister, has regarded this exhibition to be of such importance that he has "hot footed"—or perhaps as he has flown from Berne to-day I should say "rushed"—to be with us this afternoon.

All of us from our earlier days have possessed a great admiration and liking for Switzerland. Some of us in our childhood days recall the gift of one of those beautiful little models of a Swiss chalet which turned out to be a musical box. Others may have been fortunate enough to enjoy the winter sports. Some of our people have remained in this most hospitable country longer than the ordinary tourist and returned to this country healed of a terrible disease. On the eve of their departure they will have been touched by the benediction of the setting sun on the snow-clad mountainside. Whatever our walk in life, Switzerland has always made a great appeal to the English people. It has shown the world how these people, differing in characteristics, can live together in peace and harmony. Nothing



The President and the Swiss Minister, welcoming guests

seems to disturb their equanimity. If I may use the word affectionately this "little" independent country has preserved its calm and independence in a cauldron boiling with hatred.

We are very grateful for the opportunity given to us of seeing this excellent exhibition. It is a very fine effort indeed. You may think I should have spoken about architecture, but with the many examples of the work of Swiss architects for you to see for yourselves, I feel comment from me is wholly unnecessary. I will not delay you longer, but ask His Excellency the Swiss Minister to say a few words to you.

HIS EXCELLENCY DR. PAUL RUEGGER (Swiss Minister in London) in opening the exhibition, said: My first word at the opening of the exhibition of Swiss Planning and Building will be an expression of sincerest and deepest gratitude, a word of thanks to the President and to the Council of the Royal Institute of British Architects, not only for the very kind, cordial and friendly expressions which the President has just passed regarding my country, but also for having so helpfully, and I may say graciously, assisted the Swiss architects in organising the exhibition which we are now witnessing. It is due to the British Institute that this view of Switzerland's recent endeavours to contribute in her own way to the solution of some of the problems of reconstruction is held in this beautiful home of the Royal Institute of British Architects.

In the name and at the express desire of the Swiss Federal Council, I should like to convey especially to His Majesty's Government the sincere thanks of the Federal Government for the interest which has been shown on behalf of the authorities in this exhibition, which is under the patronage of the Royal Institute of British Architects. I am particularly happy to be able to see that this afternoon more than one member of His Majesty's Government has found the time to see this exhibition.

Only last night the Vice-President of the Confederation, M. Philipp Etter, who from the beginning has taken the keenest part in bringing about this review of Swiss architectural efforts, requested me to convey to the Royal Institute of British Architects, as well as to all those who by their encouragement and help have assisted in bringing about this exhibition, his cordial greetings, his appreciation and his gratitude.

This is the second Swiss exhibition organised this year in



"The Swiss Muses Come to Squat." An amusing montage cut out of newspapers as tailpiece to the Exhibition

London, the first being the Swiss Book Exhibition held in the spring. I may perhaps be allowed to add that in the course of the last few weeks and months members of the Swiss Federal Government have themselves had the welcome opportunity of exchanging ideas on cultural problems also with eminent servants of the Crown who have come as honoured guests to our country. It has been most gratifying to see that never in the long course of history have the ties between England and Switzerland on intellectual and cultural lines, and not only on the lines to which the President of the Royal Institute has so kindly alluded, been closer and firmer than they are to-day.

The exhibition which we are witnessing to-day is of a practical character. I do not mean to say thereby that when the occasion arose Swiss architects were not called upon to create buildings of supreme artistic qualities also. The architects of our small country, Ticino, gave to Europe in the Renaissance and afterwards many masterpieces, from the facade of St. Peter's in Rome to the Bridge of Sighs in Venice. The present in great part utilitarian character of the exhibition is inspired by the human ideas of light, of comfort, and of contributing as far as possible to the joy of life, in the dwellings of the people, their places of recreation, and places of healing. If by this expression of Swiss architectural thought some help can be given to the study of problems which differ in every country, but are everywhere most urgent, the efforts of the organisers will not have been in vain.

REVIEW OF THE EXHIBITION

By E. Maxwell Fry, B.Arch.(Livpl.) [F.]

My first reaction to this very lovely exhibition was one of gratitude. It seemed a most friendly act; as heart-warming as the first west wind after winter. If architects in Switzerland could but have seen us being unfrozen, and felt this soft wind of friendship moving through the assembly of their guests at the R.I.B.A. they would have known their generous efforts rewarded; this, I felt, was Europe foregathering again.

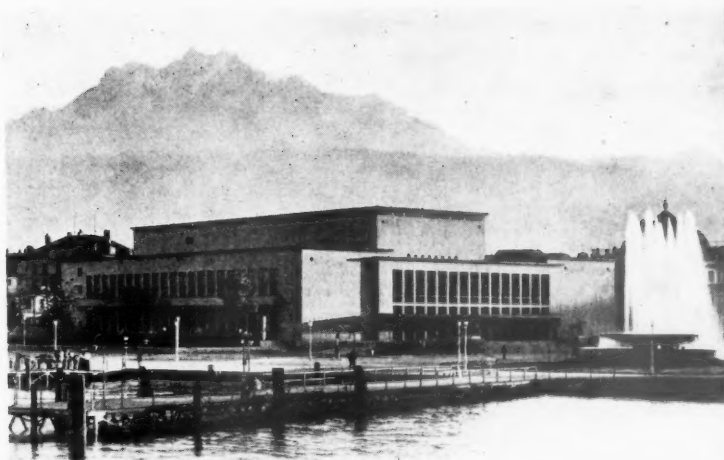
The first fact to notice about architecture in Switzerland is that it is a social art enjoyed by an uncommonly large proportion of the nation, and that town planning is its natural extension. We think of Swiss precision, efficiency and high technical standards, but we overlook what this exhibition makes so clear, namely, the homogeneity of the Swiss way of life. Either the architects of that happy country are possessed of unusual gifts of exposition, one thinks, or most of its inhabitants are half-way to being architects. It is not the large and important buildings which mould the environment of life so much as the ubiquitous small buildings and the paraphernalia of the street and market place, and there is a naturalness in the disposition

of homely Swiss architecture and a care for the whole, that is of the essence of town planning. They place a fountain, a small monument, a book kiosk, or a telephone box with such modesty that no one could fail to be immediately on terms with it; it is as though these things were done by friends and among friends, as probably they are.

This exhibition places the accent upon planning, upon a mixture of planning and preservation that we can well understand, and the few well-chosen examples of regional and town planning are bodied forth in a much larger selection of housing schemes; few of them of any size, or exhibiting more than simple variants of traditional Swiss cottage types, but all of them models of careful and loving siting as though the idea of a pleasant living place were uppermost in the minds of their planners.

Thus, from housing one came to schools, sometimes ambitious in size but more often—and this an object of educational policy—small and scaled down to the local community. Housing and schools, these are the prime considerations of a working democracy.

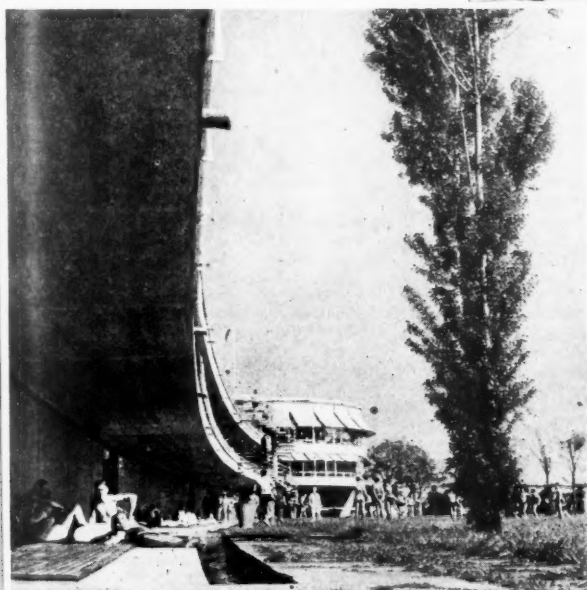
Right: Museum of Art at Lucerne.
Architect, Armin Meili



Below: Lido, Lausanne.

Architect, Marc Piccard

A general view looking towards the circular restaurant



It is the churches that best typify the Swiss level contemplation of the facts of life as they find them. They are to me austere but I would prefer a deepening and enriching of the functional approach to any attempt at this time to find a new monumentality. It would be truer to say perhaps that their fault lies in being from a religious point of view insufficiently functional but they are as honest and unblinking as William Tell himself.

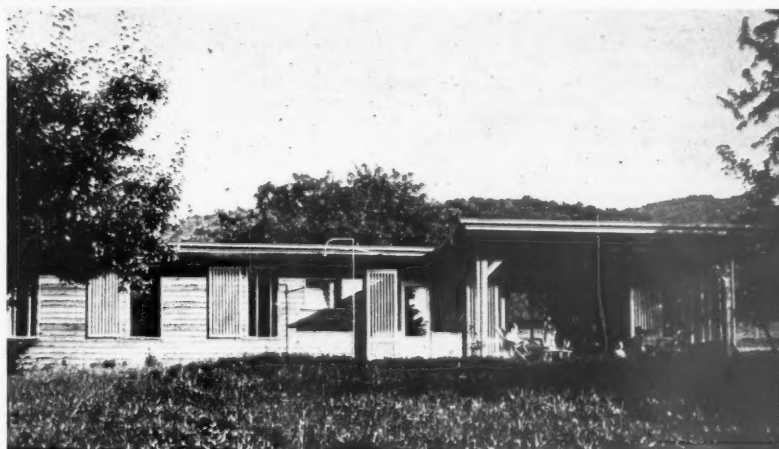
As the scale of building rises Swiss architecture seems less sure of itself. This is particularly true of hospital and large educational buildings, the two largest and most recent hospitals, at Basle and Zurich technically beyond compare, having so little to say. In these, as in the great hospital at Stockholm, the design is shared, and somewhere there is a whiff of management and committee control, neither favourable to the production of architecture of quality.

It is sad that we should have missed seeing the exhibitions in which so many Swiss architects have given rein to the lyrical qualities which more serious and practical projects appear to restrain. These and the delightful sports and recreational centres are evidence of a side of Swiss character, where technique and light-heartedness are really happily wedded; and with this release comes a broader scale, escaping the modular rule that too often prevails and making the most hopeful junction with the pattern of regional planning that is their connection between natural and formal beauty.

But you can best judge the architecture of a country by its private houses where architects interpret most directly the character, quality and rhythms of intimate family life. Among these I came across W. M. Mosers' house at Zollikon which I have long admired for its subtle fusion of the personal and particular with the formal and architectural. And there were the "Parc House Flats" of O. and W. Senn, as good work of its kind as Switzerland produced to compare with the "Doldertal" flats of Roth and Breuer, more light-hearted and lyrical than Swiss architecture normally is.

Right: Week-end house near Mammern on Lake Constance

Architect, A. Roth.



PRACTICE NOTES

EDITED BY CHARLES WOODWARD [A.]

Ministry of Supply Circular

IRON AND STEEL DISTRIBUTION SCHEME IRON AND STEEL SHEETS

The demand for steel sheets is much in excess of supply, and it has been found necessary to introduce a separate allocation for them. In future "M" Forms authorising the acquisition of steel will only be available for sheets when specifically marked.

In the past "M" Forms for steel have been generally available for purchase of sheets, and as a result there is an excessive volume of orders on makers' books, which is interfering with the smooth operation of the Distribution Scheme. To remedy this, it has been arranged, with the co-operation of the industry, that all existing orders which cannot be executed by 31 October will be scheduled for review by the authorising Department, and deliveries after 31 October against such orders will only be made where they have been re-authorised. Consumers will be notified by their suppliers of any orders so scheduled for review.

The foregoing does not apply to existing authorised orders for export or for replacement of merchants' stock under licence, for which different arrangements are in operation.

Ministry of Health Circulars

In connection with the Building Restrictions (War-time Contraventions) Act 1946, the Minister of Health has issued a Circular 137/46 dated 5 July 1946, giving his observations to authorities who have to administer the Act and, subject to his appellate jurisdiction under the Act, giving general guidance.

It is suggested that substantial structures erected during the war which are still in use or have a potential use, are, perhaps, national assets, and if they have already stood for several years are not likely to cause danger if they remain. Authorities should therefore hesitate to take action on account of minor or technical infractions of building law or planning control.

Where there are more serious breaches of building law or planning control but which can be remedied without undue expense or interference with the use of the buildings, they may be allowed to continue on suitable conditions without imposing a time limit.

Where serious infractions exist it may still be desirable to allow a building to remain, perhaps for a limited period, or to allow the applicant the alternatives of making alterations or of retaining the unaltered building under a time limit.

Buildings which involve little or no infraction of building law relating to structure, may be serious from the planning aspect or building law apart from structure. Zoning, building lines, improvement lines and road widenings are examples. The importance of the building from the public standpoint and the use to which it is to be put would be considered and in such cases it is suggested that it may be desirable to consider retaining the buildings subject to a time limit, the limit being determined by the time it is expected that the planned development will be brought into effect.

Authorities who deal only with one aspect of the matter are asked to warn applicants to apply to all other authorities concerned, and where an application is adversely decided, to remind the applicant of the right of appeal.

While the Act requires plans and other information to accompany an application and while a block plan of the site and the surroundings is always desirable, it is suggested that authorities should obtain further information by inspection rather than by calling for detailed drawings such as would be required in connection with a new building.

Where it is difficult to say that there has or has not been an infringement of the law and there is no reason to suppose that any danger will arise from an undisclosed infringement (i.e., foundation or drainage) authorities are recommended to give a formal determination rather than leave the legal position uncertain until, by effluxion of time under the Act, it is established.

The following persons may make applications under the Act:—
The owner or occupier of property affected by the Act.

Any person who proves that he has or intends to acquire an interest in any property affected by the Act, or that he has borne any of the cost of carrying out work on the land during the war period (i.e., 3 September 1939 to 25 March 1946). Where the interest of the Crown is affected, any person acting on behalf of the Crown.

Special difficulty may arise where Crown property is transferred to

private persons. The Minister hopes, with the co-operation of other Government Departments concerned, to reach an arrangement whereby responsible authorities are informed as soon as it is decided to dispose of a Crown building which brings it within the Act.

(The Act was epitomised in Practice Notes in the JOURNAL for May last.)

Circular 170/46
Ministry of Health,
Whitehall,
London, S.W.1.
3 September 1946.

To Housing Authorities
County Councils for information (England).
SIR,

Simon Report Thermal Insulation of Dwellings Proposed New Methods of Construction

1. I am directed by the Minister of Health to say that further consideration has now been given to the report which the Fuel and Power Advisory Council, under the chairmanship of Sir Ernest Simon, recently made of Domestic Fuel Policy (Command 6762). A copy of this report accompanied Circular 112/46.

2. This report deals principally with modern methods of space and water heating, but it points out that it is hardly satisfactory to instal the latest fuel-saving devices without ensuring that the heat provided by these is not unnecessarily dissipated through walls and roofs. The present high costs of coal demand not only efficient heating appliances but a high degree of thermal insulation in the construction of dwellings. Traditional materials and methods do not provide the necessary insulation and new ways must be found of avoiding the considerable heat losses which occur in a traditional brick house.

3. The most obvious method of effecting an improvement in the thermal insulation of external walls is to substitute an inner leaf of clinker or foamed slag blocks for the inner leaf of brick in an 11 in. cavity wall. On the ground floor the floorboards can be laid on dovetailed battens (suitably rot-proofed) set direct on oversite concrete or, if timber is not available, pitchmastic or other solid flooring may be substituted.

On the top floor, slag or glass wool can be laid over the ceiling. It may also be desirable to place an upper limit to the total window area of the house. The total annual fuel-savings effected by these methods may justify substantial additional costs of construction.

4. Details of the proposed methods of construction and costs are given in the Appendix to this Circular. The Council are invited to study these suggestions and to inform the Minister how far they would be prepared to adopt such methods in their own housing programme.

5. There are plentiful supplies of slag wool, and adequate supplies of foamed slag can also be made available. If, however, when the comments of the Housing Authorities have been received, it appears that the demand for these materials will increase substantially, the Minister will be prepared to consider how still further to augment supplies.

I am, Sir,
Your obedient Servant,
H. SYMON.

(Enclosure to Circular 170/46.)

APPENDIX

Standards of Insulation

The following table gives the standards of insulation in a traditional brick house and an average of the standards recently recommended by Government Committees:—

Surface	U = Losses in B.Th.U./sq. ft./hr. /°F.	
	Traditional	Recommended
	U	U
External Walls	0.34	0.20
Floor	0.35	0.20
Roof	0.56	0.20

The costs of achieving or approximately achieving the recommended standards are compared below with the cost of traditional construction.

External Walls

The internal leaf of the ordinary brick cavity wall can be replaced by either foamed slag or clinker concrete blocks 4 in. thick without increasing the cost. The standard of insulation achieved is $U = 0.20$.

This would lead to a reduction in the demand for bricks of 5,000 bricks per house.

Floor

In place of boarding and joists on sleeper walls a solid floor of floorboards on dovetailed battens (suitably rot-proofed) set on a waterproof membrane on the oversite concrete would raise the standard of insulation to $U = 0.15$. Pitch mastic laid directly on concrete would be a suitable alternative giving a U value of about 0.20.

The difference in cost between the two forms of construction depends on the height of the floor above ground level and the slope of the site. On flat sites where the floor level is not much above the ground level the recommended construction would only increase the cost by £2. For other sites it might be as much as £5 and on some sites it would be uneconomic. It should be noted that the recommended method would save both timber and bricks.

Roof

The easiest way to improve the roof insulation of a house with a pitched roof is to lay slag wool or glass wool over the ceiling of the top floor. A thickness of one inch would be sufficient to achieve the desired insulation and the estimated additional cost per house would be about £8 for slag wool or £5 for glass wool.

Windows

It should be noted that the heat losses through windows are nearly as high as the losses through the walls in houses with the recommended standards of insulation, and represent nearly 20 per cent. of the total heat requirements. The calculations are based on a house with a window area of 18 per cent. With larger areas the losses may be very much higher. It may be necessary if the benefits of improved insulation are to be obtained to place some upper limit on the window area in relation to the size of the house. It is true that site and aspect will influence the heat losses and double glazing would reduce them.

Saving in Fuel

To offset the slight increase in capital cost which may be caused by the improved insulation there will be a saving in expenditure on fuel.

The heat requirements per annum for a house with traditional construction and for a house with the standards of insulation obtained by the methods recommended above, assuming that the Egerton standards of heating and ventilation are maintained in both cases, are as follows:—

Surface	Requirements in Millions B.Th.U. per annum.			
	Traditional Construction	Recommended Construction	Savings	Per cent.
External Walls ..	6.88	4.00	2.88	42
Windows ..	4.05	4.05	—	—
Ground Floor ..	6.85	2.78	4.07	60
Ceiling and Roof ..	3.22	1.16	2.06	64
External Doors ..	0.66	0.66	—	—
Ventilation ..	6.11	6.11	—	—
Total Requirements allowing for heat gains, and losses through party walls)	29.2	20.4	9.0	30

The resultant saving in fuel will depend, of course, on the efficiency of the appliance or appliances installed. Assuming that an appliance with a working efficiency of 30 were installed the saving would be nearly one ton of fuel per annum or 70 shillings per annum. Assuming that such a saving could be offset against an increase in the capital cost of the house it would justify an additional capital cost of £80.* Even allowing for the fact that ventilation may be higher than that allowed for, and as is suggested in the Egerton report, that it would be unreasonable to assume that the tenant would accept that the whole saving in fuel cost should be offset by an increase in rent, it is clear that improved standards of insulation are more than justified. Indeed, they have the additional merit of vastly improving the standards of comfort in the house in summer as well as in winter.

* With interest at $3\frac{1}{2}$ per cent. every addition of £1 to the capital cost increases the interest and amortisation charge by about 9½d. per annum.

R.I.B.A. Cost Plus Percentage Form of Prime Cost Contract for Use in the Repair of War Damaged Property

THE NATIONAL INSURANCE SCHEME

By Clause 8 of the above form of Prime Cost Contract the Builder is required to effect and maintain the Insurances referred to in Clause 7. These Insurances are:—

- (i) Employer's contributions in respect of National Health Insurance and Unemployment Insurance.
- (ii) Insurance of the Builder's liability as an Employer under the Workmen's Compensation Acts, Employers' Liability Act and any other Statute or at Common Law.
- (iii) Insurance under Third Party risks.

The cost of these Insurances is covered by the *percentage additions* set out in Clause (A) of the Second Schedule to the Form of Contract.

The National Insurance Scheme provides for a very substantial rise in the amount of Employer's contributions for the statutory insurances, and the increase announced in respect of Pensions in Cmd. 6878 with effect on 30 September 1946 (i.e., 11d. per week per man) is a first instalment towards raising the level of Employer's contributions to that required for the full operation of the National Insurance Act.

It is understood that the adjustment of the *percentage additions* for war damage work as set out in the War Damage Commission's pamphlet ROD.1, and reproduced in the Second Schedule of the above Form of Contract, is a subject of discussion between the National Federation of Building Trades Employers and the War Damage Commission. Contracts entered into on the above Form of Contract should, therefore, be subject to adjustment in the amount of a percentage addition in accordance with any decision given as a result of those discussions.

The same principle would apply to the adjustment of the Fixed Fee in Contracts undertaken on the R.I.B.A. Fixed Fee Form of Prime Cost Contract for use in the repair of War Damaged Property.

REVIEW OF PERIODICALS

1945-46—III (concluded)

ALLIED ARTS

BURLINGTON MAGAZINE, 1946 April, pp. 90-4 : Some French books on the fine arts (inc. architecture), 1939-45. Annotated bibliog. by D. Sutton.

ART AND INDUSTRY, 1946 March, pp. 66-77 : New education—organic approach. Article by L. Moholy-Nagy on principles followed at Inst. of Design, Chicago, in art and industrial art education, also ref. architectural edn. Illusd.

BONYTT (Oslo), 1946 No. 1, pp. 20-4 : English industrial design. Article by A. E. Davies. Illusd. JNL., ROYAL SOCIETY OF ANTIQUARIES OF IRELAND, 1945 (Vol. LXXV, pt. iv), pp. 187-94 :

Dublin Custom House, the Riverine sculptures. Article by H. G. Leask on 14 carved keystones typifying Irish rivers, carved by Ed. Smyth.

ILLUSTRATED CARPENTER AND BUILDER, 1946 January 18, pp. 62-3 : The Art Workers' Guild. Article in London interlude series by Freda Derrick on furniture in A.W.G. Hall.

BONYT (Oslo), 1945 No. 7-8, pp. 93-100 : Danish Co-operative Society furniture for homes. Article, photos, diagrammatic drgs.

BUILDING

JOURNAL OF THE INCORPORATED CLERKS OF WORKS ASSOCIATION OF GREAT BRITAIN, 1946 April, pp. 33-6 :

"Strange building practices." Article by "Architect."

BUILDER, 1946 February 22, pp. 195-8 :

JNL., R.I.B.A., Mar., pp. 155-9 :

Science in architecture. Lecture to R.I.B.A. by Prof. J. D. Bernal, F.R.S., chairman, Scientific Advisory Ctte. of Min. Works. Gen. summary of problems and methods of study. Discussion.

ARCHITECTS' JOURNAL, 1946 March 14, pp. 224-5 :

BUILDER, March 15, pp. 267-8 :

NATIONAL BUILDER, March, pp. 188-91 :

The organisation of building science research. Paper to R.I.B.A. Archl. Science Board by Prof. J. D. Bernal, F.R.S.

STRUCTURAL ELEMENTS

ARCHITECT AND BUILDING NEWS, 1946 January 25, pp. 52-5 :

Some foundation troubles with small houses. Paper to Inst. Sanitary Engs., by L. F. Cooling. Special ref. soil movements and shrinkage.

HOUSE BUILDER, 1946 February, pp. 21-2 :

Damp-proof courses in cavity walls. Illusd. article by J. M. Morris.

ARCHITECTURAL RECORD, 1946 February, pp. 129, 131 :

Parapet walls : methods of avoiding cracks. Constn. details by F. N. Severud.

ARCHITECTS' JOURNAL, 1946 April 11, p. 284 :

Brick vault built without centering : war emergency repair in baroque church, S. Teresa, Turin.

CONCRETE AND CONSTRUCTIONAL ENGINEERING, 1946 April, pp. 112-5 : Arch roof in prestressed concrete, Bombay. Reprint from article in Indian Concrete Jnl., 1944 Nov. 15.

JNL., INSTITUTION OF CIVIL ENGINEERS, 1945-6 January, pp. 228-31 : Concrete shell roofs with flexible moulds. Paper by K. Billig on Waller system of constn. of roofs on hessian moulds. Illusd. example, span 40 ft.

TECHNIQUES ET ARCHITECTURE (Paris), 1945 No. 3-4, pp. 53-102 : "Terrasses," special No. on every aspect, aesthetic, structural, historical, of flat roofs. Roof coverings, materials, insulation, damp-proofing. Roof gardens. Well illusd.

HEM I SVERIGE (Stockholm), 1946 No. 3, pp. 217-9 : Earth and turf-covered sloping roofs for small rural bldgs. Tech. details.

ARCHITECTS' JOURNAL, 1945 December 27, Information Sheet 956 : Floor finishes : steel surfacing for heavy-duty floors.

BUILDING OPERATIONS

IRISH BUILDER AND ENGINEER, 1946 March 9, pp. 132-4 : Settlement : consolidation tests as an aid to estimation. Article by E. Hanrahan on sample testing, apparatus, calculations, etc.

BUILDING PRACTICE AND INDUSTRY

ARCHITECTS' JOURNAL, 1946 January 17, pp. 55-62 : "How do we stand in this first year of peace?" Survey by E. Watkins of British Building Industry : its constitution, future prospects, training, building priorities, rents and rates, prefab. Relations between govt. and local authorities and builders.

NATIONAL BUILDER, 1946 March, pp. 186-7 : An American contract organisation in Britain. Article by John Wilton. CONCRETE AND CONSTRUCTIONAL ENGINEERING, 1946 March, pp. 69-73 :

Responsibility for defective construction : a 10 yrs' insurance scheme, proposed by Prof. G. Magnel (Ghent)—"Bureau Seco," with opinions by leading British engrs.

MATERIALS

IRISH BUILDER AND ENGINEER, 1946 March 9, pp. 128-30 : Recent research on native [Irish] building materials. Article by M. P. Beausang. Physical properties of stones and concretes.

AIR TREATMENT ENGINEER, 1946 February, pp. 42-7 : Sootfall studies for New York City, by J. Siegel and B. Feiner. Atmospheric pollution.

OFFICIAL ARCHITECT, 1946 February, pp. 78-93 : Timber special No. Articles on trees, uses of wood in building. Scientific aspect, etc.

Wood, 1946 February, pp. 33-5 : Wood fallacies. Notes by H. E. Desch. Fire dangers, decay, dry-rot.

Wood, 1946 January, pp. 3-6 : Damage by death-watch beetle to roof timbers of York Minster. Description of damage and remedial work. Illus.

ARCHITECT AND BUILDING NEWS, 1946 February 1, pp. 70-2 : Bamboo : a survey of building conditions and accommodation for prisoners-of-war in Malaya and Thailand, 1942-5, by N. H. Pritchard, with illusd. notes on bamboo structures.

BOUW ('s-Gravenhage, Rotterdam), 1946 March 30, pp. 325-30 : The development of the use of veneers (inc. plywoods) in building from ancient Egypt to the "Queen Mary." Illusd. article by W. D. Beekman.

PROGRESSIVE ARCHITECTURE : PENCIL POINTS, 1946 March, pp. 105-6 : Plywood. Physical characteristics in Building Products Facts series.

BYGGMASTAREN (Stockholm), 1946 No. 3, pp. 45-52 : Wood-wool boards : detailed analysis of properties, etc., by H. Billman.

CIVIL ENGINEERING, 1946 January, pp. 23-4 : Testing waterproofing compounds for concrete. Article by L. E. Hunter. Various types compared.

STRUCTURAL ENGINEER, 1946 February, pp. 65-112 : Aluminium alloys and their structural use, by H. K. Hardy and C. G. Watson.

CONSTRUCTION, including PREFABRICATION

L'ARCHITECTURE D'AUJOURD'HUI (Paris), 1945 No. 4, Nov.-Dec., pp. 3-91 :

Prefabrication and industrialisation in building. Special No. General discussion on prefabn. Systems illusd. and described in detail. Articles on prefabn. in England, U.S.A., France and other countries. A useful reference.

L'HOMME ET L'ARCHITECTURE, 1945 Nov.-Dec., pp. 9-18 : Prefabrication in France and the U.S.A. Illusd. summary of some methods.

PROGRESSIVE ARCHITECTURE : PENCIL POINTS, 1946 March, pp. 87-99 : "Mobilar" structures. System by Wachsmann employing standardised tubular members with special adaptable jointing for vertical and horizontal members all types structures. Details illusd.

ARCHITECTS' JOURNAL, 1946 March 21, pp. 233-5 :

A new system for pre-cast concrete frames, developed by R. E. Egan Ltd., used for farm sheds, barns, factories, etc.

ARCHITECTS' JOURNAL, 1946 February 28, pp. 177-8 :

Caulking methods, for seating panel joints and window-frame joints in prefabd. bldgs. Paper by R. G. H. Salmon.

ARCHITECTS' JOURNAL, 1946 March 21, pp. 231-2 :

The laying of stoneware pipes for drains and sewers. Paper by L. B. Escritt, A.M.I.C.E.

JNL., R.I.B.A., 1945 December, p. 54 :

Report on stains in stonework, prepared by Instn. of Structural Engrs. Notes on experiments and recommendations on treatment.

CUADERNOS DE ARQUITECTURA (Barcelona), 1945 December, pp. 17-26 : Retrospective survey of architecture of cast iron, by A. C. Pellicer. Illusd. by works of Eiffel, Boileau, Cottancin, etc.

CONCRETE, 1946 February, pp. 49-52 :

New American regulations for reinforced concrete. Abstract of clauses from Code printed in JNL., AM. CONC. INST. 1945 June.

PENCIL POINTS, 1946 January, pp. 90-3 :

Timber design progress during and since the war. Article by A. G. H. Dietz, Asst. Prof., Structural Design, M.I.T. Bibliography.

ARCHITECTS' JOURNAL, 1946 February 21, pp. 159-63 :

Adventures in lumber. Notes on modern timber structural technique by D. Pleydell Bouverie. Large span roofs.

SANITARY SCIENCE AND EQUIPMENT, including SERVICE UNITS

L'HOMME ET L'ARCHITECTURE (Paris), 1946 No. 1-2, pp. 17-24 : "Blocs d'eau." Bath, lavatory and w.c. units and plan elements. Various French systems illusd. and described.

ARCHITECTURAL FORUM, 1946 February, pp. 81-96 :

House equipment packaged. Borg-Warner's Ingersoll prefabd. unit, kitchen and bathroom, water heater, etc. Described and illusd. by demonstration units in 5 houses by Stubbins, Stone, Yost, Dow and Harris.

ARCHITECTURAL DESIGN AND CONSTRUCTION, 1946 March, pp. 74-5 : All-purpose service unit : a 2-way solid fuel appliance with electrical auxiliaries by Building Components Producers' Association and Coal Utilisation Res. Assn. Hot water and cooking services for small house.

BUILDER, 1946 March 22, p. 287-8 :

Kitchen-bathroom service unit, by Arcon, incorporating all units in sm. house needing heat, water, air for working.

ARCHITECTS' JOURNAL, 1946 April 18, pp. 307-10 :

ARCHITECTURAL DESIGN AND CONSTRUCTION, April, follg. p. 106 : Arcon kitchen and bathroom service unit (illusd.).

BUILDER, 1946 April 19, pp. 383-4 :

The "All-purpose service unit" for small houses, cooking, h.w. services in pre-fabd. stack. Designed by Building Component Producers' Assn. with Coal Utilisation Research Assn.

BUILDING INDUSTRIES AND SCOTTISH ARCHITECT (Glasgow), 1946 February, pp. 34-8 :

Electric wiring for small houses. Article by T. C. Gilbert, A.M.I.E.E.

HOUSEBUILDER AND ESTATE DEVELOPER, 1946 February, pp. 8-9 : Lower wiring costs. Article by P. Scholberg on Inst. Electl. Engrs. proposal for use of ring mains in house wiring.

ARCHITECTS' JOURNAL, 1946 February 14, pp. 150-1 :

"The tabular method of daylight measurement," by J. Swarbrick. Notes on the use of the Natl. Physical Laboratory's standard tables of window performance.

ARCHITECTURAL RECORD, 1946 January, pp. 62-7 :

Designing with fluorescent lighting. Article by Luckiesh, pt. 2 : supplemental lighting, drafting rooms, offices, lighting levels.

LIGHT AND LIGHTING, 1946 January, pp. 8-11 :

Fluorescent tubes for non-technical lighting. Paper by T. C. Holdsworth. Electrical characteristics ; uses, installation problems.

ARCHITECT AND ENGINEER (San Francisco), 1946 February, pp. 5-6, 43 : Fluorescent lighting for typical home settings.

ARCHITECTURAL DESIGN AND CONSTRUCTION, 1946 April, pp. 106-11 : Heating and kitchen equipment. Illusns. from Good Heating Exhibition, London.

JNL., ROYAL ARCHITECTURAL INSTITUTE OF CANADA, 1946 January, pp. 3-5, 19 :

Heating. Paper by Forsey Page, largely on district heating in U.S. and Canada.

HEATING AND VENTILATING ENGINEERS AND JNL. OF AIR CONDITIONING, 1946 March, pp. 371-9 :

The transient warming of rooms. Paper by Miss M. V. Griffiths of British Electrical and Allied Industries Res. Assn. Room insulation, heat transference, efficiency of wall surfaces for conservation of heat.

- JNL., INSTITUTION OF HEATING AND VENTILATING ENGINEERS, 1945 Nov.-Dec., pp. 224-52 :
Solid fuels and appliances for space heating : some notes on their selection and use. Paper by E. B. Johnson. Varieties of fuel and calorific values ; open fires ; hot-water heaters.
- HEATING AND VENTILATING ENGINEER AND JNL. OF AIR CONDITIONING, 1946 February, pp. 345-55 :
The economic spheres of alternative methods of space and water heating by solid fuel appliances, gas, electricity and district heating. Paper to Glasgow Inst. of Fuel by D. V. H. Smith.
- ARCHITECTS' JOURNAL, 1946 March 14, pp. 215-8 :
All-purpose heating service unit for small two-storeyed houses, developed by the Building Component Producers' Assn.
- BUILDER, 1946 March 15, pp. 265-6 ;
BUILDING, April, pp. 126-7 ;
BUILDING INDUSTRIES (Glasgow), April, pp. 48-50, 52 :
M.O.W. heat service unit. Prefabd. heating system for sm. houses. Illusd.
- ARCHITECT AND BUILDING NEWS, 1946 April 19, pp. 41-4 :
The "one-source heating unit," by W. Segal. Single water heater and hot-air convector for small houses.
- BUILDING, 1946 March, pp. 74-7 :
One-source heating. Htg. unit for small houses designed to provide warmth in every room through heat-radiating flues. Designed by W. Segal and G. R. Jackson.
- AIR TREATMENT ENGINEER, 1946 April, pp. 101-5 :
Factory in a railway tunnel. Description of heating and ventilation problems and equipment of factory in 5 miles of London Underground, by S. C. Mount. Paper to Inst. Htg. and Ventg. Engrs.
- AIR TREATMENT ENGINEER, 1946 January, pp. 48-9 :
Computation of overall thermal transmittance by use of the "U" chart. Chart as loose inset for thickness and resistivity of various materials.
- PROGRESSIVE ARCHITECTURE : PENCIL POINTS, 1946 February, pp. 92-3 :
Gas heating equipment : types, locations and venting requirements.
- JNL., ROYAL ARCHITECTURAL INSTITUTE OF CANADA, 1946 February, pp. 41-3 :
Panel heating, by K. R. Rybka. Physiological concepts, design data, costs.
- AIR TREATMENT ENGINEER, 1946 April, pp. 98-100 :
Thermal storage heating, Walthamstow Civic Centre. Tech. article. Illusd.
- AIR TREATMENT ENGINEER, 1946 February, pp. 55-9 :
District heating. Paper to Inst. of Fuel, by R. O. Kapp.
- ARCHITECTS' JOURNAL, 1946 March 28, pp. 249-50 :
Some notes on district heating, by R. F. Brooks Grundy, A.M.Inst.C.E.
- BASIC DESIGN FACTORS. Economic factors, application to existing estates. INDUSTRIAL HEATING ENGINEER, 1946 April, pp. 43-9 :
Distribution systems for district heating in Russia, by P. G. Kaufmann, A.M.I.Mech.E., based on art. by S. Y. Belinsky in Teplosilovoye Khozyajstvo, 1939, 4/5, pp. 68-73 No.
- TEKNISK TIDSKRIFT (Stockholm), 1945 December 15, pp. 1361-72 :
District heating in Switzerland. Study by Prof. L. Malm.
- ARCHITECT AND BUILDING NEWS, 1946 March 8, pp. 154 :
Chimney stacks in houses, position on plan. Notes in E. and O.E. Housing Series.
- INDUSTRIAL HEATING ENGINEER, 1946 April, pp. 50-4 :
Control of humidity in industry. Note by M. R. Morton.
- JNL., INCORP. CLERK OF WORKS ASSCN., 1946 Jan., pp. 13-4, and subsequent issues ;
JNL., R.I.B.A., January, pp. 78-84 :
The painting of buildings : an exposition of the Min. Works Post-war Building Study Rept. No. 5, by James Lawrance. Paper to R.I.B.A. Archl. Science Bd.
- PROOFING**
BUILDING STANDARDS (Los Angeles), 1945 December, pp. 4-7 :
Fire resistance classifications of building constructions. Proposals for Section 4 of Uniform Building Code.
- FIRE PREVENTION, 1946 February, pp. 52-61 :
Fire hazards in the printing and allied trades.
- JNL., R.I.B.A., 1946 March, pp. 183-8 :
Sound insulation : some historical notes by W. Allen and Ruth Pocock of B.R.S. Early and 19th-cent. practice, early scientific studies. Bibliography.
- BUILDING STANDARDS (Los Angeles), 1945 February, pp. 4-7 :
Acoustics of buildings with applications in the Pentagon (U.S. War Dept. bldg., Washington), by F. R. Watson. Sound insulation in offices.
- ELECTRICAL SUPERVISOR, 1946 February, pp. 95-100 :
The protection of structures against lightning. Article by R. A. Price,

F.R.Met.S. Air and earth terminations, conductors, arrangement for special types of structure.

A.R.P., WAR DAMAGE, INCLUDING REPAIR

BUILDING, 1946 February, pp. 50-2 :
Camouflage in peace-time. Article by Stephen Bone (artist) on possibilities of concealment of unsightly factories, etc.

JNL., R.I.B.A., 1945 December, pp. 35-42 :
The preservation of historical architecture in the war zones. Paper to R.I.B.A., by Lt.-Col. Sir Leonard Woolley on the work of Civil Affairs Dept. of S.H.A.E.F. Illusd.

ARCHITECTS' JOURNAL, 1946 April 11 ;
BUILDER, April 5, pp. 328-9 :
An architectural journey in war-time Italy, by R. E. Enthoven : describing the work of the Monuments and Fine Art Division of War Office.

* BUILDING, 1946 March, pp. 80-2 :
Restoration of Leningrad. Article by Prof. V. Railyan. Illusd.

CONCRETE AND CONSTRUCTIONAL ENGINEERING, 1946 April, pp. 109-11 :
Repair of reinforced concrete damaged by fire. Reprint of B.R.S. Note 18 on repair of damaged buildings.

TOPOGRAPHY

ARCHITECTURAL REVIEW, 1946 March, pp. 66-71 :
Mount Quarry : an account of the vicissitudes of Liverpool Rock since 1767, by Roy Christie and A. N. Ward. An illusd. description of St. James's Cemetery, Liverpool.

PLANNING FOR RECONSTRUCTION (physical and sociological)

TOWN PLANNING REVIEW (Liverpool), 1946 Spring (Vol. 19, No. 2), pp. 69-70 :

U.S. National Resources Planning Board, 1934-43 : a bibliography of its reports and publns., edited by K. Dziewonski.

TOWN AND COUNTRY PLANNING (general)

JNL., TOWN PLANNING INSTITUTE, 1945 Nov.-Dec., pp. 1-7 :
Thomas Sharp's presidential address to T.P.I. (Added ref.)

JNL., R.I.B.A., 1946 March, pp. 180-2 :
Town and Country Planning. Address to R.I.B.A. Council by Parlt. Secretary to Ministry of T. and C.P., Mr. F. Marshall, with questions on policy.

JNL., AUCTIONEERS' AND ESTATE AGENTS' INSTITUTE, 1946 February :
The trend of town-planning legislation. Paper by H. W. Wells, F.S.I., 1932 and later Acts. Compensation and betterment.

JNL., CHARTERED SURVEYORS' INSTITUTION, 1946 February, pp. 58-72 :
Town planning interim development and the repair of war damage. Paper by H. G. May.

REGIONAL PLANNING

JNL., TOWN PLANNING INSTITUTE, 1946 Jan.-Feb., pp. 62-7 :
Some aspects of the regional planning problem, with special reference to housing. Paper by E. J. Hamlin to S. African branch of T.P.I., by E. J. Hamlin, D.Sc., F.R.S. (S.A.), City Engr., Johannesburg.

LA MAISON (Brussels), 1945 December, pp. 279-85 :
Relation of town and countryside : search for equilibrium. Analytical article by Marcel Schmitz (illusd.).

TOWN PLANNING AND RE-PLANNING (including WAR-DAMAGED AREAS)

LA MAISON (Brussels), 1945 August, pp. 137-41 :
Town planning, architecture and civic design. Analytical article by Victor Bourgeois (illusd.).

JNL., TOWN PLANNING INSTITUTE, 1945 Nov.-Dec., pp. 30-7 :
Balanced towns : their bases and occurrence in England and Wales. Paper by A. E. Smailes. What is a "balanced" community—social, industrial, etc., relationships ; employment group.

URBANISME (Paris), 1945 No. 105-6, p. 45 :
"Mots d'ordre." 18 "instructions" or governing principles prepared by Direction Générale de l'Urbanisme for guidance of town planners—a code of practice.

JNL., R.I.B.A., 1946 March, pp. 175-9 :
Mexican architecture and town planning. Lecture at R.I.B.A., by Carlos Contreras, Presdt. Natl. Assn. of T.P., Mexico. Illusd.

BUILDER, 1946 January 18, pp. 74-5 :
Human needs in planning : discussion at conference at R.I.B.A. Population, neighbourhood units, industrial location, etc.

JNL., TOWN PLANNING INSTITUTE, 1946 March-April, pp. 83-95 :
Survey and its practical application to planning. Paper by Max Lock to T.P.I. Special ref. Middlesbrough survey and plan.

JNL., TOWN PLANNING INSTITUTE, 1946 Jan.-Feb., pp. 43-53 :
The creation of a new town. Paper by J. F. Eccles, one-time managing Director, Welwyn Gdn. City, and discussion.

- WERK (Zürich), 1946 April, pp. 117-20 :
The hygiene of old towns, by H. Bernoulli, illud. by Swiss examples
medieval planning and modern clearance.
- TOWN PLANNING REVIEW (Liverpool), 1946 Spring (Vol. 19, No. 2),
pp. 91-8 :
The art of building cities. A critical review of Plymouth, Durham,
Norwich Plans, by W. A. Eden.
- ARCHITECTURAL ASSOCIATION JOURNAL, 1945-6 Dec.-Jan., pp. 31-6 :
Visual planning and the City of London, by Pevsner. (Added ref.)
- ARCHITECT AND BUILDING NEWS, 1946 February 15, pp. 93-4 ;
BUILDER, February 8, pp. 143-4 :
Stepney-Poplar Reconstruction area. L.C.C. plan. Illud. by model
and plans.
- BUILDING, 1946 March, pp. 88-91 :
Bath. Sir Patrick Abercrombie's plan, reviewed by Sir Ch. Reilly.
Illud.
- JNL., INSTITUTION OF MUNICIPAL AND COUNTY ENGINEERS, 1946
February 5, pp. 267-82 :
Coventry : tentative planning and redevelopment proposals. Paper
by E. H. Ford, City Engr. Central area replg., zoning, road junctions
and fly-overs, "transport centre" bus station, etc., green belt, trading
estate, airport.
- BUILDER, 1946 April 19, pp. 376-80 :
Birkenhead. Plans for development and replg., by Sir C. H. Reilly and
N. J. Aslan. Exhibition.
- ARCHITECTS' JOURNAL, 1946 April 11, pp. 287-91 :
Knutsford : an experiment in redevelopment. Report of plan by
W. Dobson Chapman, landscape by G. A. Jellicoe, neighbourhood
unit plg. by J. G. Ledebor, civic centre by B. O'Rourke, industrial
estate by F. R. S. Yorke. Illud.
- ARCHITECTS' JOURNAL, 1946 March 28, pp. 251-4 :
A plan for Warsaw, prepared by Polish Govt., exhibited Housing Centre.
- L'HOMME ET L'ARCHITECTURE, 1945 Nov.-Dec., pp. 39-44 ;
WERK (Zürich), 1946 April, pp. 109-13 :
Le Corbusier's reconstruction plan for the central portion of St. Dié.
Scheme includes 8 tall blocks flats and small houses, civic centre, fac-
tories, etc. Fully illud. and described by le C.
- ARKHITEKTURA S.S.S.R. (Moscow), 1945 No. 9, pp. 9-15 :
Novgorod. Replanning scheme by Schuser, Lavrov and Bogorov.
- ARKHITEKTURA S.S.S.R. (Moscow), 1945 No. 10, pp. 3-6 :
Smolensk. Reconstruction plan by G. Golch.
- WERK (Zürich), 1946 April, pp. 102- :
Project for the reconstruction of Rovaniemi, Finland, by Aalto and the
Reconstruction Office of the Finnish Architects' Society.
- INGENIOREN (Copenhagen), 1946 March 26, pp. 153-61 :
Industrial location in Copenhagen district. Analytical article by
engineer H. Halberg.
- Bouw, 1946 April 6, pp. 343-52 :
Katwijk. "Reconstruction and Expansion," by H. v. d. Kloot Meyburg.
"Architects' Co-operation in Rebuilding," by W. J. Gerretsen. Analy-
tical articles. Illud.
- ARCHITECTURAL DESIGN AND CONSTRUCTION, 1946 January, pp. 3-8 :
Atom City, Oakridge, Tennessee. Reprint from Archl. Forum. (Added
entry.)
- ARCHITECTURAL FORUM, 1946 January, pp. 96-9 :
"Man over Manhattan." Article on R. W. Dowling, real estate busi-
ness man. Largely concerned with development of Manhattan Island.
City development, private enterprise estate promotion.
- ARCHITECTURAL FORUM, 1946 February, pp. 113-5 :
Proposed city redevelopment for blighted area, Long Island City, New
York City, by Pomerance and Breines, Thomas, Goodman. Full
community development, mainly flats with parks, community bdgs., etc.
- ARCHITECTS' JOURNAL, 1946 April 11, pp. 295-6 :
Reconstruction of our streets. Lecture by G. A. Jellicoe in series on
Design in daily life sponsored by L.C.C.
- LA MAISON (Brussels), 1945 December, pp. 272-5 :
Aesthetics of reconstruction. Analytical article by Sean Galloti (illud.).
- NUESTRA ARQUITECTURA, 1945 December, pp. 413-9 :
City form : the lineal city. Article by J. M. F. Pastor. Theory illud.
from various authors.
- JNL., TOWN PLANNING INSTITUTE, 1946 Jan.-Feb., pp. 56-7 :
Planning for recreation and holidays. Abstract of paper by Bowers.
- ZONES, including RESIDENTIAL AREAS**
LA MAISON (Brussels), 1945 November, pp. 243-8 :
"Paris Green Belt." Analytical article by M. R. Joffet (illud.).
- BUILDER, 1946 January 18, pp. 78-80 :
The commercial needs of towns. Paper by O. W. Roskill to Town and
Country Planning Summer School.
- AMERICAN FORUM, 1946 March, pp. 137-8 :
"College Park Shopping Centre," designed by Berla and Abel. Building
Preview No. 47. Illud.
- BUILDER, 1946 Jan. 11, pp. 57-8 ;
JNL., INSTITUTION OF MUNICIPAL AND COUNTY ENGINEERS, 1946
February 5, pp. 257-66 :
The parking of motor vehicles. Paper by Lewis Silkin, M.P., Minister
of Town and Country Planning. Genl. survey of problem and references
to possible solutions.
- BUILDER, 1946 February 22, pp. 186-8 :
Mechanical car parking : some aspects and systems. Article by S. H.
Statham. Baldwin-Auger system, ring type parks, etc. Illud.
- ARCHITECT AND ENGINEER (San Francisco), 1945 December, pp. 18-23,
38 :
"Apparel City," San Francisco. Industrial estate of 32 acres small
factories for garment industry with communal amenities, garage,
auditorium, library, etc.
- L'HOMME ET L'ARCHITECTURE (Paris), 1946 No. 1-2, pp. 41-51 :
Neighbourhood and community plg. Analytical article by R. A. and A.
Wogensky. Illud.
- JNL., R.I.B.A., 1946 February, pp. 107-16 :
The planning of residential areas : paper to R.I.B.A. by Gordon
Stephenson and discussion.
- JNL., TOWN PLANNING INSTITUTE, 1946 Jan.-Feb., pp. 74-5 :
An experience of neighbourhood unit planning by Elsie Rogers. Paper
on social and technical problems in planning London suburban area.
- BUILDER, 1946 January 18, p. 65 :
Duchy of Cornwall Estate, Kennington. Plan for area in neighbourhood
of estate, by Louis de Soissons, architect, and H. F. Chambers, surveyor.
- CALIFORNIA ARTS AND ARCHITECTURE (Los Angeles), 1946 February,
pp. 35-7 :
Community development. Project for small estate, by E. M. Corbett,
landscape by Eckbo and Williams. Designs for sm. houses.
- TOWN PLANNING REVIEW (Liverpool), 1946 Spring (Vol. 19, No. 2),
pp. 57-63 :
Some types of housing in Liverpool, 1785-1890, by A. Errazurez.
Survey of slum planning, light and air conditions, etc.
- ROADS AND STREETS, TRANSPORT PLANNING**
JNL., INSTITUTION OF MUNICIPAL AND COUNTY ENGINEERS, 1946
March 5, pp. 322-36 :
Aspects of future road design. Paper by J. Stebbings, and discussion.
Widths, gradients, crossings.
- STRUCTURAL ENGINEER, 1946 January, pp. 1-24 :
An outline of the history of road and bridge construction (with par-
ticular reference to S. Wales and Monmouthshire), by T. Bryn Richard.
Roman times to modern.
- ENGINEERING NEWS-RECORD, 1946 January 10, pp. 123-59 :
Highway plans for 1946 in U.S.A. Includes highway design standards,
road sections : bridge parapet design.
- PROCS., AMERICAN SOCIETY OF CIVIL ENGINEERS, 1946 March,
pp. 287-305 :
Express highway planning in Metropolitan areas. Paper by J. Barnett.
Routing, use of existing highways, construction, access.
- GARDENS**
ARCHITECTURAL REVIEW, 1946 February, pp. 49-56 :
"Parks and Pelargoniums." Article by H. F. Clark on English 19th-
century park design. The "Picturesque" and "Gardenesque" Repton,
Loudon, J. B. Papworth, William Robinson.
- WERK (Zürich), 1946 March, pp. 85-97 :
Gardens, series of illud. articles on Swiss garden design of many types,
with cost analyses of garden work.
- URBANISME (Paris), 1943 No. 86 :
Gardens and open spaces in towns. Vichy-ite consideration of urban
reconstruction in France inc. Paris green belt.
- ARCHITECTURE FRANÇAISE, 1946 January, pp. 3-18 :
Public parks and gardens : discussion of French reconstruction plans,
pp. 6-18 illuds., urban parks.
- AMERICAN CITY, 1945 December, p. 113 :
Transport park. Project for city park, small airport, trailer and caravan
camp by Churchill and Fulmer, archts.
- ARCHITECTURAL FORUM, 1946 February, pp. 76-80 :
Landscape gardening. 1, The small lot. Article by G. Eckbo on small
house gardens. Illud.
- ARCHITECTURAL FORUM, 1946 March, pp. 141-4 :
"Landscape Gardening ii. Community Planting." Analytical article
on work of Garrett Eckbo (illud.).
- ARCHITECTURAL DESIGN AND CONSTRUCTION, 1946 March, pp. 63-6 :
Trees and shrubs suitable for estate planting : 1st of 3 articles by Brenda
Colvin. Illud.

BOOK REVIEWS

Work of Art in Italy. Losses and Survivals in the War.

Part II. North of Bologna, together with Regional Summaries and a Supplement to Part I. Compiled from War Office reports by the British Committee on the preservation and restitution of works of art, archives and other material in enemy hands. 4to. pp. iv+209. H.M.S.O. London. 1946. Price 5s. net.

REVIEWED BY R. E. ENTHOVEN [F.]

This volume, based upon the Reports of the Monuments, Fine Arts and Archives Officers, completes the record of losses and survivals amongst works of art in Italy, the "patrimonio" of which that country has always been so justly proud.

Part I, which was the first of the series of official booklets dealing with war-ravaged European countries, referred only to the area south of Bologna. Compiled while the war was still in progress and published in 1945, it was inevitably incomplete and contained minor inaccuracies. It did, however, in giving advance information, do much to dispel the fear that more had been destroyed than in actual fact had been; rumours such as that S. Gimignano had become another Cassino.

Part II, a volume of over 200 pages, covers the area north of Bologna and amplifies the information in the earlier booklet. The disadvantage of so splitting the material is that information on any particular item is not as easily found as had the reports been amalgamated and re-edited as one comprehensive book. Thus for Monuments, Northern Regions are in Part II, grouped together under place-names in alphabetical order, while Southern Regions are shared between Parts I and II. Antiquities and archaeological collections, movable works of art, galleries and deposits, and libraries covering all Italy and Sicily are in Part II, but separated under the Regional Summaries. Archives for the North are in Part II, for the South in Part I. An appendix to Part II, covering all Italy and Sicily, records the extent of contracts financed and put in hand through the Superintendencies of Monuments and Galleries for first-aid repairs: the intermediate step between urgent work carried out by Allied service personnel and the later full restoration to be carried out by the Italian authorities. To the figures given might have been added further contracts carried out through the Genio Civile.

The letterpress is liberally illustrated with photographs. These are not confined to mournful records of damage and destruction, but indicate also the more human side of what was achieved to preserve works of art; Leonardo da Vinci's Last Supper surrounded by the rubble of S. Marie delle Grazie but found intact on the removal of the protective covering: The procession of Fifth Army trucks arriving in Florence with their load of art treasures which the Germans had taken away from their Uffizi deposits and which were recovered later in the Alto Adige; world-famous pictures stacked against the walls of the Sitwell Villa at Montegufoni; the bronze horses of St. Marks apparently trotting round the courtyard of the Doge's Palace; also structural first-aid in the form of timber shoring and the consolidation of damaged frescoes. That bombing could reveal as well as destroy is shown in the photograph of Palestrina, where the terrace walls of the Temple of Fortuna were exposed by the destruction of the mediaeval city.

The information thus set out gives a dispassionate picture of the relentless effect of war, the attempts to protect and disperse, the tragic results of aiming errors despite service efforts to limit destruction. But also, outweighing them, it records the miraculous escape from the "red-hot rake" of much that might so easily have been lost for all time.

To-morrow's House, by George Nelson and Henry Wright.

Notification has been received that this publication, reviewed by Professor Basil Ward [F.], and at present only published in America, is to be published in England by the Architectural Press.

London Building Law, by Horace R. Chanter, [F.], F.S.I., M.I.Struct.E. 4to. pp. * + 358. B. T. Batsford, Ltd. London. 1946. Price 21s. net.

REVIEWED BY C. WOODWARD [A.]

This book comes at an opportune moment. As soon as the housing problem becomes less acute, presumably general building will start again, and this volume will enable architects and others, in the interim, to master the numerous Acts, Bye-laws and Regulations that affect building in London. Written as it is by a district surveyor gives it an added value, and although the interpretations and opinions are his own, nevertheless they should be given due weight.

The method adopted makes the Acts easy to understand as the sections are rendered in everyday language as distinguished from the draftsman's language. But the interpretation is still what Parliament has said, and not what it thought it was saying. (This latter calamity accounts, to some extent, for amending Acts.) Diagrams are inserted against some sections to further elucidate the meaning, and there are a series of most useful diagrams giving the town planning angles in the County of London draft scheme in relation to the width of streets and height and space at rear. The chapter on this draft scheme will repay careful study.

One chapter is given to definitions and interpretations taken from Acts and Bye-laws, and there is a marginal reference to the Act or Bye-law concerned. Other matters dealt with are the Restriction of Ribbon Development Act and the Public Health (London) Act, together with tables and calculations affecting buildings to be designed in accordance with the Acts and Bye-laws.

The book should be in the library of the practising architect as well as in that of the student, as there is contained between its covers the information which, prior to its issue, could only be found by laborious reference to several publications.

Plumbing and Gas-Fitting. General Editor, E. Molloy. 4to. 378 pp. 600 illustrations. G. Newnes, Ltd. 1946. 15s.

This book includes sections on the fixing and jointing of pipes in lead and copper, working of sheet metal, sanitation and drainage, hot and cold water supplies and gas fittings. It is described as written by a master craftsman for the practical man.

OBITUARIES

Charles Edward Hutchinson [Ret. A.]

Mr. Charles Edward Hutchinson [Ret. A.], died on 20 March 1946 at the age of seventy-seven.

He was trained in the offices of Mr. Hodgson Fowler (architect to Durham Cathedral) and came to London in 1891, being elected an Associate in 1901. From 1901 to 1905 he was in partnership with Mr. H. Clark and then commenced practice on his own account, practising at John Street, Bedford Row, W.C.1, for about twenty years, then removing to Endsleigh Street until his retirement in 1938. Among his best-known buildings are Ilford Town Hall and Municipal Offices, the Central Library at Littleborough, Lancashire, the fire station at Aldershot, and municipal works at Barry Dock (Glam.). Mr. Hutchinson designed the cinema in Camden Town High Street, shops and flats in East Sheen, flats at Hendon and at Foley Street and Candover Street, W.1, the Church of All Saints, Preston, and the Church of St. Sampson's, York.

An Associate member of the Council for the session 1910-11, he was up to 1925 on many of the Institute Committees, the Science Standing Committee (1910-11), the Practice Standing Committee (1911-21), Competitions Committee (1910-14) and was Hon. Auditor for the 1909-10, 1919-20, 1920-21 and 1923-24-25 sessions.

Evan Roberts [Ret. L.]

The death of Mr. Evan Roberts [Ret. L.], occurred on 9 August 1946 at the age of 69.

He was trained in the offices of Messrs. Grierson and Bellis of Bangor, North Wales, and commenced practice in 1913 in partnership with Mr. C. T. Taylor. In 1934 they entered into partnership with Mr. H. Bowman [F.] and practised as C. T. Taylor, Roberts and Bowman, at Oldham, Lancs.

The firm's principal architectural works with which Mr. Roberts was concerned were the Westhulme Hospital, the Industrial Co-operative Society Offices, Stanley Road School, and St. Mark's Church, all in Oldham.

John Edward Bladon [F.]

Mr. John Edward Bladon has died at the age of seventy-six.

He was trained in the office of Mr. Paul Ogden, Manchester, and commenced private practice in Liverpool in 1919, practising with his son, C. A. Bladon [A.] (deceased) under the style of J. E. Bladon & Son until 1925. He specialised in later life in quantity surveying and arbitration work, but his earlier architectural works were Malton

Hospital, Bakewell Memorial Hospital, Wallasey Liberal Hall, the Egremont Baptist Church, Wallasey, Moreton Baptist School and the Page Moss Baptist Church, Liverpool.

Herbert Norman [F.]

The death of Mr. Herbert Norman [F.] occurred on 23 July 1946, in his seventy-eighth year. Mr. Christopher Croft [L.], of Northampton, has sent us the following appreciation:—

"The death of Mr. Herbert Norman is a great loss to the profession in Northampton which not only greatly appreciated his architectural skill but also his interest and efforts in connection with social welfare. During World War I he volunteered to help the Northants. War Charities by preparing sketches of any desired building, and, as his skill as a pen and ink artist was well known, the charities benefited very considerably.

"In 1911 he was chiefly instrumental in forming the Northamptonshire Association of Architects and was its first Honorary Secretary,

later becoming its President. He conducted most of the negotiations which enlarged the Province of the Northamptonshire Association of Architects by the inclusion of Bedfordshire and Huntingdonshire and always took a great interest in the association, which owes a lot to him.

"He was born in 1868 at Northampton, was articled to Mr. M. deW. Holding [A.] and after some years in Birmingham started on his own account in 1896. He built up an extensive general practice and among the buildings he designed are the Public Library, Town and County School, Municipal Cemetery, chapel and lodge, all at Northampton. He also designed the Northamptonshire County Golf Club House, several new inns and other work for the Northampton Brewery Company, additions and alterations to Pitsford Church, Northants, Tempsford (Beds.) Memorial Hall and other domestic work and business premises in Northamptonshire and Bedfordshire. He was Surveyor to the Northampton Municipal Charities.

CORRESPONDENCE

The Work of Alfred Stevens

To the Editor, JOURNAL R.I.B.A.

SIR,—I have undertaken the formation of a Catalogue Raisonné covering the whole art of Alfred Stevens as architectural sculptor, painter, designer and worker in metals, ceramics and furniture. It will be of great service if all those who possess material, including letters or other MSS., would report these to me at Threals Lane Studio, West Chiltoning Common, Sussex, for examination and recording. It is especially required that works once known to have been in Italy and in the United States of America should be traced and documented.

Yours faithfully,

KENNETH ROMNEY TOWNDROW.

Rehabilitation of Ex-Service Students

To the Editor, JOURNAL R.I.B.A.

SIR,—I read with interest L/Cpl. S. H. Porter's letter in the June R.I.B.A. JOURNAL concerning the external student, and the Editor's note thereto.

The Government, in publishing details of their Further Education and Training Scheme, state: "In particular the supply of persons highly qualified in . . . the fine arts has been seriously curtailed. They have accordingly approved plans for providing financial assistance to enable suitably qualified men and women, on demobilisation, to undertake or continue further education or training."

The Secretary of the Board of Architectural Education writes: "The authorities of the Recognised Schools have agreed to provide refresher courses for those returning from the Forces as far as they are able to do so with their restricted staff and accommodation."

This would lead an external or part-time student, who has served throughout the war in H.M. Forces, to hope for an opportunity upon his release of taking a short full-time rehabilitation course; but upon enquiry I received the following reply: "I greatly regret that, owing to the very large number of our own students, whose courses were interrupted by the war and who are now returning to us, we shall, for the next few years, be obliged to decline all applications for admission to a higher year than the First," or "I am afraid all the schools are full (including the Bartlett School of Architecture)."

The "B" release scheme announced in the April R.I.B.A. JOURNAL means that ex-full-time students are getting early release and rehabilitation; on the other hand, the external student, who is still in the Forces, may expect neither. (The "bloc" "B" release scheme has not affected myself, despite more than four years' service.) In the overseas command in which I serve, external and part-time students in R.E. Works Services are having their normal class "A" release (and consequent return to their profession) compulsorily deferred, because of shortage of tradesmen—a situation aggravated by the Class "B" release of full-time students.

Are those who qualify for the profession the hard way to have their way made even harder, while others benefit at their expense?

Yours faithfully,

KENNETH TINDALL [S.], Q.M.S., R.E.

Editor's Note:

The matters raised by Mr. Tindall have already received careful consideration by the appropriate Committee of the R.I.B.A. in consultation with the Government Departments concerned. Both recognised schools of architecture and other technical colleges have made increases in accommodation and staffing to meet the needs of architectural students returning from the Forces consistent with the equally urgent and important claims of other branches of study. In most cases where full-time refresher courses are not available and facilities

can be offered for evening classes every possible opportunity is being provided for those ex-Service men and women who desire specialist courses of study.

With regard to the "B" release scheme, it should be appreciated that following representations made by the R.I.B.A. the Government agreed to release 3,500 architectural assistants from the Forces by 30 June 1946. All such releases were made before any concessions were allowed in respect of full-time students of architecture, with the possible exception of a very small number of scholarship students returning to University schools. It is appreciated that cases of hardship must occur where men otherwise qualified for "B" release, either as assistants or as full-time students, are being retained in the Forces by overriding service requirements in respect of which the Commander on the spot must of necessity have the last word. Despite these difficulties the R.I.B.A. will continue to do all in its power to secure reasonable treatment of all its students and members in the Forces.

Planning in the Third Dimension

To the Editor, JOURNAL R.I.B.A.

SIR,—I recently attended the Town and Country Planning Summer School held at Durham, under the auspices of the Town Planning Institute, and upon return wrote to Mr. W. L. Waide, Honorary General Secretary of the School. As the subject of the letter may be of interest and may possibly bring forth suggestions and ideas upon this subject, I give below an extract from my letter to Mr. Waide, for the interest of your readers:—

"At one of the discussion groups I asked the chairman to suggest that next year there might be a paper dealing with various aspects of planning in the third dimension. The time is rapidly approaching when actual rebuilding will commence in blitzed cities. We in Coventry are now faced with the consideration of this problem (a problem upon which there is likely to be a great deal of controversy) and doubtless many other cities are similarly placed.

The sort of paper which would seem to be most useful would be one incorporating some of the following points:—

1. The object of control.
2. The history of control, both in Britain and other countries, and the lessons to be learned from the results which were achieved.
3. The safeguarding of individual initiative, and the avoidance of monotony, within the framework of control.
4. Methods of controlling design either by the preparation of outline designs, or by the use of models, or by negative restrictive control.
5. The characteristics desirable in the controller, and how they can be assured.
6. Conclusions, and if possible a suggested outline code for adoption by cities now facing the problem.

It seemed to me that this Summer School largely dealt with planning in two dimensions. Whether or not our towns are to form a beautiful and satisfying environment will depend very largely upon planning in the third dimension. A city with planning problems still unsolved may yet be beautiful (think of Durham), whilst a city with an excellent road plan and zoning may yet be the dullest place on earth. Those who heard Thomas Sharp's paper on Durham, and who saw the recent third dimension changes in the Market Square, brought about by some of the chain stores, will see the urgency of this matter in both old and new towns."

Yours faithfully,

DONALD E. E. GIBSON [A.],

Appeal for Technical Journals

To the Editor, JOURNAL R.I.B.A.

SIR,—Many of our men are still overseas and will not return for another six to twelve months or even longer. Now that the war is over they are even more anxious than before to return home and to keep in touch with their civilian professions. We receive many appeals for technical literature from the Middle and Far East and we do not want to disappoint those who need our assistance, however small.

During the war we received many journals, sufficient to enable us to send them almost monthly to a long list of eager readers. But the flow has nearly dried up while the need is still there. It is not possible for individuals to obtain subscriptions while paper is so short and waiting lists are long.

We appeal to all those who can spare their copies when they have read them to send them to the address below.

Yours faithfully, E. V. PENN,

General Secretary,

Association of Building Technicians,
5, Ashley Place, London, S.W.1.

Public Education for Planning

To the Editor, JOURNAL R.I.B.A.

SIR,—Having seen the film "The Way We Live," I am tempted to fly into print because I felt that something had not quite got across and that that something is partly due to a lack of contact between the architect and the people who are to inhabit his dream cities. As an attempt to get planning on to the plane of the people and as a lesson in film production the film is wholly excellent.

Several months ago I lectured to some troops, who were leaving for home, on the subject of planning. I painted for them the horrors of

no-planning and explained how much ground had to be planned in order to make any part of a plan work. As debating points they were offered: (1) Is planning better than trial and error?; (2) if so, how much planning should we have? The discussion was, naturally enough, a bit "woolly," but two things were very clear: (a) they all agreed that planning was better than no-planning; (b) that in so far as planning laid down where the houses were to go, the schools and shops that served those houses, and so on, they would rather have no planning than be dictated to on such matters.

Planning of the constructive kind does impose a *milieu* on the people and a vast amount of educational work must be put in before a people who have been bred on the doctrine of individual freedom will collaborate in it. The Institute should pioneer this work, and the planners should meet the objections of the layman. Restrictive planning of the kind which we have had for so long has a wider appeal, for it says in effect "Do as you like, so long as you don't do so and so."

Regarding the film, what I felt particularly had missed the target were the sketches of the city in solid form. This is far more important than the presentation of the plan, for few people can sift a plan, but all want to know what it will look like. Whilst I wholly agree that this presentation should be unconventional, is it necessary to invent jagged concrete masses which the ordinary public (and indeed quite a lot of architects) is far from ready to accept? Moreover, I think the ordinary man wants to know far more about his houses and shops than about traffic routes and city centres. Here, too, there is a lot of spade-work to be done. For example, the terraced house is not yet an acceptable idea.

Yours faithfully,

DANIEL ROTH [A.]

NOTES AND NOTICES

Members Serving with the Forces Decorations and Distinctions

FAIRBAIRN: R. R. M.C. [A.], Lieut.-Col. Awarded (U.S.A.) Legion of Merit, Degree of Officer.

INGLEBY: G. R. [S.], Major R.E. Awarded M.B.E.

JENNINGS: C. O. [A.], Capt. R.E. Mentioned in Despatches.

LACOSTE: G. A. C., M.B.E. [A.], Lieut.-Col. Awarded (U.S.A.) Bronze Star Medal.

MITCHELL: N. B. [S.], Capt. R.E. Awarded M.B.E.

OKER: J. R. [A.], Lieut. R.E. Mentioned in Despatches.

PLACE: F. G. J. [L.], Lieut.-Col. Awarded Australian "Efficiency Decoration."

WAKEHAM: P. O. G., O.B.E. [A.], Brigadier, R.E. Mentioned in Despatches (Third time).

Classes of Retired Members

Under the provisions of Bye-law No. 15 applications may be received from those members who are eligible for transfer to the class of "Retired Fellows," "Retired Associates," or "Retired Licentiates."

The Bye-law is as follows:—

"Any Fellow, Associate or Licentiate who has reached the age of fifty-five and has retired from practice may, subject to the approval of the Council, be transferred without election to the class of 'Retired Fellows,' 'Retired Associates,' or 'Retired Licentiates,' as the case may be, but in such case his interest in, or claim against the property of, the Royal Institute shall cease.

"The amount of the annual subscription payable by such 'Retired Fellows,' 'Retired Associates' or 'Retired Licentiates' shall be £1 ts., or such amount as may be determined by resolution of the Council, excepting in the case of those who have paid subscriptions as full members for thirty years, and who shall be exempt from further payment. A 'Retired Fellow,' 'Retired Associate' or 'Retired Licentiate' shall have the right to use the affix class with the word 'Retired' after it, shall be entitled to receive the JOURNAL and Kalendar, shall be entitled to the use of the Library, and shall have the right to attend General Meetings, but shall not be entitled to vote. A 'Retired Fellow,' 'Retired Associate' or 'Retired Licentiate' shall not engage in any avocation which in the opinion of the Council is inconsistent with that of architecture. Nothing contained in this Bye-law shall affect the rights of persons who at the date of the passing of this Bye-law are members of the classes of 'Retired Fellows' and 'Retired Members of the Society of Architects.'"

Inaugural General Meeting

TUESDAY, 12 NOVEMBER 1946, AT 6 P.M.

The Inaugural General Meeting of the Session 1946-47 will be held on Tuesday, 12 November 1946, when the President, Mr. L. H. Keay, O.B.E., M.Arch. (Lvpl.), will deliver the Inaugural Address of the Session.

The President will unveil the portrait of Sir Percy Thomas, O.B.E., Hon. LL.D., D.L., Past-President, by James Gunn.

R.I.B.A. 1945 Standard Form of Contract

NATIONAL INSURANCE ACT 1946

The Joint Contracts Tribunal have given consideration to the manner in which in their opinion the increases in employers' contributions in respect of Health and Pensions Insurance announced in the White Paper Cmd. 6878 should be dealt with in current contracts.

Clause 25A entitled "Fluctuations" was not drawn with the intention either of anticipating or covering the situation which might arise if and when statutory effect were given to the proposals for National Insurance contained in the Beveridge Report, but was framed on the basis of past experience in the matter of alterations in employers' contributions for the statutory insurances. Thus upon the legal construction of this clause any increase or decrease in the amount payable by the contractor in respect of such employers' contributions is not the subject of an adjustment of contract sum under that clause.

The National Insurance Scheme provides for a very substantial rise in the amount of employers' contributions and the increase announced in respect of pensions in the White Paper with effect on 30 September 1946 (i.e., 11d. per week per man) is a first instalment towards raising the level of employers' contributions to that required for the full operation of the National Insurance Act. It is the opinion of the Joint Contracts Tribunal that, ethically, this increase with effect on 30 September next should, in respect of, at any rate, some current contracts, be an addition to the contract sum.

The Joint Contracts Tribunal propose to re-examine the terms of clause 25A of the R.I.B.A. 1945 Standard Form of Contract having regard to the requirements of the National Insurance Scheme. Meantime it is felt that this announcement will be of assistance to architects, surveyors, contractors and others.

This note deals only with current contracts. Under the R.I.B.A. Form of Contract the architect has no power to certify this rise in the employers' contribution, and therefore he can do no more than put the position before and, if he sees fit, make a recommendation to the building owner, leaving him to decide whether or not he will consent to an addition to the contract sum. Tenders delivered after notice had been received of the official announcement of the forthcoming increases should include this additional employers' contribution.

The Reception of New Members at General Meetings

The procedure for the introduction and reception of new members at General Meetings is now as follows. New members will be asked to notify the Secretary beforehand of the date of the General Meeting at which they desire to be introduced and a printed postcard will be sent to each newly elected member for this purpose. They will be asked to take their seats on arrival in a special row of seats reserved and marked for them. At the beginning of the meeting, on the invitation being given to present themselves for formal admission, each new member will be led up to the Chairman by one supporter, and the Chairman will formally admit him to membership.

The introduction and reception of new members will take place at any of the Ordinary General Meetings of the Royal Institute with the exception of the meetings on the following dates:

- 12 November 1946. Inaugural General Meeting.
- 11 February 1947. Presentation of Medals and Prizes.
- 15 April 1947. Presentation of Royal Gold Medal.

Board of Architectural Education

R.I.B.A. Final and Special Final Examinations

LONDON CENTRE—DECEMBER 1946

The Oral Examination at the London centre will be held on *Friday, 13 December*, instead of Thursday, 12 December.

The Institute's Appeal

The following is the twenty-ninth list of donations received up to 31 August 1946 in response to the appeal issued to all members and honorary members and students on 16 December 1938.

Members who are contemplating making an increased payment of subscription, whereby the amount of the increase will be payable to the appeal fund, are reminded that if they are prepared to enter into an agreement for the payment of such increased subscription for a period of seven years or more they will be entitled to deduct income tax at the standard rate from the amount by which the subscription is increased.

Full particulars were published in the issue of the JOURNAL for 6 February 1939 and can be obtained on application to the Secretary, R.I.B.A.

DONATIONS

	£	s.	d.
Harry Barrett [A.] (fifth donation)	3	3	0
J. J. Beck [A.] (fifth donation)	1	8	0
F. Milton Cashmore [F.] (sixth donation)	3	3	0
L. A. Culliford [F.] (second donation)	5	5	0
G. I. Cuzens [Student] (third donation)	10	6	
Owen Eaton [F.] and C. H. Merrifield [A.] (fifth donation)	5	5	0
F. A. O. Jaffray [F.] (eighth donation)	5	5	0
A. W. R. Kendrick [A.] (seventh donation)	1	1	0
J. H. Liddington [L.]	10	0	0
Colonel M. K. Matthews [F.] (fourth donation)	2	12	6
Stanley Natusch [A.] (seventh donation)	2	2	0
Keng Siang Ng [A.]	1	1	0
W. J. Werry [A.] (eighth donation)	10	6	
Anonymous (various amounts)	9	14	3

DONATIONS FROM R.I.B.A. ALLIED AND OTHER SOCIETIES

	£	s.	d.
Cape Provincial Institute of Architects (balance of rebate of members' subscriptions for 1944)	4	14	6
Norfolk and Norwich Association of Architects (rebate of members' subscriptions for 1945)	16	16	0
Northants., Beds. and Hunts. Association of Architects (balance of rebate for 1945)	8	9	
County Architects' Society (second donation)	10	10	0

ADDITIONAL SUBSCRIPTIONS

	£	s.	d.
Professor L. W. Thornton White [F.]	3	3	0

The donations and additional subscriptions received and promised and bank interest up to 31 August 1946 represent a total of £8,819 17s. 7d. This amount does not include increase of subscriptions or contributions promised for which no definite period is stated.

Board of Architectural Education

R.I.B.A. PRIZES AND STUDENTSHIPS.—MOUNTING OF DRAWINGS.
The attention of intending competitors is drawn to item No. 3. of the General Conditions. In view of the difficulty of obtaining material for mounting drawings it has been decided to waive this regulation for the Prizes and Studentships offered for award this year.

R.I.B.A. Examination for Candidates for the Office of Building Surveyor under Local Authorities

The attention of candidates is drawn to the fact that a revised syllabus and time-table for the R.I.B.A. Examination for Candidates for the Office of Building Surveyor under Local Authorities will come into operation on 1 JANUARY 1947. Copies of the form of application containing the revised syllabus may be obtained from the Secretary, R.I.B.A., 66, Portland Place, London, W.1.

R.I.B.A. Distinction in Town Planning

The R.I.B.A. Distinction in Town Planning is obtainable by Fellows, Associates (who are not less than 26 years of age) and Licentiatees. The test by means of which this Distinction is awarded is conducted by special examiners appointed by the R.I.B.A. Council. This award does not take the place of the R.I.B.A. Diploma in Town Planning, which is obtainable by Fellows, Associates and Licentiatees without any minimum age limit. The primary purpose of the Distinction is to satisfy a demand from senior architects to take a qualifying test in town planning suited to their age and existing attainments.

The examiners will meet three times a year—in February, May and October. Applications should be submitted to the Secretary, R.I.B.A. by 1 January, 1 April and 1 September annually.

Copies of the form of application containing the procedure, regulations, general scope of study and bibliography may be obtained, free, on application to the Secretary, R.I.B.A.

Annual Subscriptions and Donations

Members and students are reminded of the increased subscription and contribution rates which will come into effect on 1 January 1947. A copy of the statement which was published in the June 1946 JOURNAL is being sent to every member and student, together with an amendment Banker's Order for the use of members who pay their subscriptions by this method.

R.I.B.A. Archibald Dawnay Scholarship, 1946-47

Mr. D. W. Fletcher, of the Welsh School of Architecture, The Technical College, Cardiff, has been awarded the R.I.B.A. (Archibald Dawnay) Scholarship of £65. The scholarship is promoted to "foster the advanced study of construction and the improvement generally of constructional methods and materials and their influence on design."

Clichy Public Hall

Messrs. F. J. Wills & Son [A.L.A.] have written to us pointing out that the "disappearing wall" at the Trocadero restaurant in London, mentioned in this article in the August JOURNAL, was installed by the late Mr. F. J. Wills [F.]. Mr. Oliver Bernard was responsible for the decorations.

Canterbury Cathedral Appeal

Our attention has been drawn to the fact that the perspective view illustrated on page 504 of the September JOURNAL was executed by Mr. Trevor Davies, a second-year student (Department of Architecture, Canterbury School of Art).

County Borough of Southend-on-Sea Education Committee MUNICIPAL COLLEGE

LECTURER IN ARCHITECTURE AND/OR BUILDING CONSTRUCTION
Applications are invited for the above post in the Department of Architecture and Building. The successful candidate should possess the A.R.I.B.A. or A.M.Inst.C.E. or equivalent, and both teaching and professional experience are desired. He will be required mainly to teach students studying in the recognised School for the Intermediate and Final A.R.I.B.A. of which altogether there are now about seventy in full-time courses.

Salary in accordance with the Burnham Technical Scale (Provincial) with increments for recognised teaching, professional or industrial experience. Further details and forms of application may be obtained from H. Boyes Watson, Chief Education Officer, Warrior Square, Southend-on-Sea, on receipt of a stamped and addressed foolscap envelope. Applications to be returned to the Principal as soon as possible.

Department of Scientific and Industrial Research

Applications are invited for vacancies at the Department's Building Research Station, Garston, near Watford, Herts, for Six Assistant Architects Grade I and Eight Assistant Architects Grade II, with professional architectural qualifications, practical experience and preferably some training in elementary science, required for the following general group of work: (a) For study of the functional requirements of buildings and in particular lighting (daylighting and artificial), sound transmission and acoustics, and heating and ventilating, in relation to architectural design and construction. (b) For general liaison work with the building industry, inspection of and reporting on building practice and problems in different parts of the country, and assistance with technical enquiries. After a period of training the officers may also be required to assist in the running of training courses and lectures. (c) For work on the design of buildings to be constructed as part of the programme of the Station and for architectural design research. This latter work will probably give opportunity for specialised study of individual building types, e.g.,

schools, hospitals, etc. (d) For work on the preparation of Codes of Practice.

One Architectural Assistant to assist in studies of the functional requirements of buildings, e.g., acoustics. Candidates should have a good architectural qualification and preferably some office experience.

These appointments will be on a temporary basis but some permanent posts will become available at a later date. Salary (for men): Assistant Architects Grade I in the range £575-£825 per annum plus consolidation addition (at present £90 per annum at minimum and £98 at maximum of range); Assistant Architects Grade II £340-£600 per annum plus consolidation addition (at present £78 per annum at minimum and £90 per annum at maximum of range), and Architectural Assistants £210-£420 per annum plus consolidation addition (at present £78 per annum). In the case of women lower rates will apply. Write, quoting E.A.368/9/70, to Ministry of Labour and National Service, Technical and Scientific Register, Room 572, York House, Kingsway, London, W.C.2, for application form which must be returned completed by 11 November 1946.

COMPETITIONS

SHELTER COMPETITION

The London Passenger Transport Board invites architects to submit in competition designs for a bus-passenger shelter to replace the present utility war-time model.

Assessors: Prof. W. G. Holford, M.T.P.I. [A.], Mr. F. R. S. Yorke [F.], Mr. Thomas Bilbow [F.].

Premiums: £300; £100.

Last day for submitting designs: 3 January 1947.

Conditions may be obtained on application to the Chief Public Relations and Publicity Officer, London Transport, 55 Broadway, London, S.W.1. Envelopes should be marked "Shelter Competition."

COMPETITION FOR THE EXTENSION OF THE FIFE COUNTY COUNCIL BUILDINGS

The County Council of Fife invite architects of British Nationality resident in Scotland to submit designs for alterations and extensions of County Buildings, Cupar, Fife.

Assessor: Mr. A. G. R. Mackenzie [F.].

Premiums: £500, £300 and £200.

Last day for submitting designs: 31 March 1947.

Last day for questions: 15 November 1946.

Conditions may be obtained on application to J. M. Mitchell, Esq., County Clerk, County Buildings, Cupar, Fife. Deposit, one guinea.

COLOMBO CATHEDRAL COMPETITION

The Colombo New Cathedral Committee, in association with the Standing Committee of the Diocesan Council of the Church of Ceylon, invites architects who are qualified members of the Royal Institute of British Architects or allied bodies to submit in competition designs for the proposed Cathedral of The Holy Cross, together with Bishop's House, Divinity School, Diocesan Hall and Offices, in Colombo, on a site adjoining Buller's Road in that city. The competition is being organised by the Royal Society of Arts, London, on behalf of the Colombo New Cathedral Committee.

Assessor: Sir Giles Gilbert Scott, O.M., R.A. [F.].

Premiums: £500; £200; and £100.

Last day for submitting designs: 31 December 1946.

Conditions of the competition may be obtained on application to The Secretary, The Royal Society of Arts, 6 John Adam Street, Adelphi, London, W.C.2. Deposit £1.

COMPETITION RESULT

Royal Society of Arts: Design for a Public Drinking Fountain.

1. Cyril G. Pinfold [A.].

2. Peter S. Ferguson [Student].

Commended: Mrs. Roberta Everett.

MEMBERS' COLUMN

This column is reserved for notices of changes of address, partnership and partnerships vacant or wanted, practices for sale or wanted, office accommodation, and personal notices other than for posts wanted as salaried assistants for which the Institute's Employment Register is maintained.

APPOINTMENTS

Mr. HUBERT BENNETT [F.]. The announcement of his appointment as Deputy City Architect and Director of Housing in Liverpool made in the September JOURNAL was premature. He is retaining his post as County Architect of the West Riding of Yorkshire.

Mr. CLIFFORD BOND [F.]. It is regretted that in the August 1946 JOURNAL it was stated that Mr. Clifford Bond [F.] had been appointed "Chief Assistant to the Chesterfield Corporation." Mr. Clifford Bond has, in fact, been appointed Chief Architect to the Chesterfield Corporation and Mr. H. C. Willis [A.] has been appointed Chief Assistant.

Mr. JOHN LEONARD HOPE [A.] (late Captain R.E.) has been appointed Architect to the Public Works Department, Nigeria.

Mr. G. RAY [A.] has been appointed Principal Assistant Architect, Pembroke County Council.

Mr. R. O. SUTHERLAND [A.] has been appointed by His Highness the Maharajah to be Architect for the State of Jaipur, Rajputana. His address will be State Architect, Jaipur, Rajputana, India, and he will be pleased to receive trade catalogues, etc.

PRACTICES AND PARTNERSHIPS

Mr. JOHN ADAMS [A.] has opened a branch office in the premises of Messrs. Seymour Cole, Station Road, Newmarket.

Mr. HAROLD ALEXANDER [L.] has re-opened his London office at 8

Burlington Street, London, W.1 (Regent 2474), where he will be pleased to receive trade catalogues, etc.

Mr. T. M. ALEXANDER [F.] has taken into partnership Mr. L. W. M. Alexander [A.]. The practice at Borough Buildings, 10 Water Street, Liverpool 2 (Central 1112), will be continued under the style of Harris & Hobson. They will be pleased to receive trade catalogues, etc.

Mr. W. A. BASSETT [L.] has taken into partnership Mr. Peter Berner [A.] and they are practising under the style of Bassett & Berner at 47 High Street, Tonbridge, Kent (Tonbridge 274).

Mr. DAVID BEECHER [F.] has taken into partnership Mr. Alan B. Stamford [A.] and they will practise under the style of Beecher & Stamford at 14 Park End Street, Oxford (Oxford 3171).

Mr. F. E. BROMILOW [A.], Mr. G. H. WHILE [A.] and Mr. R. A. SMEETON [A.], on release from the Forces, have entered into partnership and will practise under the style of Bromilow, While & Smeeton at 72 Newhall Street, Birmingham (Central 6672). They will be pleased to receive trade catalogues, etc.

Mr. W. T. P. BRYCE, M.A., B.Sc. [F.] (late Major R.E.), has recommenced practice at The Bridge House, Downington, Lechlade, Glos., where he will be pleased to receive trade catalogues, etc., particularly those relating to estate, farm, and domestic equipment.

Mr. F. D. DANVERS [F.] is practising under the style of Alder, Turill & Danvers at Chorley House, 4A Bloomsbury Square, London, W.C.1, and will be pleased to receive trade catalogues, etc.

Mr. W. W. FISK [A.] and Mr. S. F. BURLEY [L.], practising at 16 King Street, Cheapside, London, E.C.2 (Monarch 5896), have taken into partnership Mr. S. H. Fisk [L.] and the practice will be carried on under the style of Fisk, Burley & Fisk at the same address, where they will be pleased to receive trade catalogues, etc.

Mr. G. FLETT [A.] is now practising in association with Mr. Wm. Mackie, P.A.S.I., at 7 Seafeld Street, Cullen, Banffshire. They will be pleased to receive trade catalogues, information sheets and other data at that address.

Mr. JOHN GREY [F.] has taken into partnership Mr. F. E. F. Atkinson [L.] and they will practise under the style of John Grey & Partner at 56 Oakley Street, Chelsea, S.W.3 (Flaxman 2770).

Mr. FREDERICK W. HONEWELL [A.] (late Major R.E.), on release from the Forces, has taken a partnership in the firm of W. E. M. Given, architects and civil engineers, Coleraine, Northern Ireland, and will be pleased to receive trade catalogues, etc., at that address.

Mr. A. S. MORRIS [A.] (late Major), upon release from the Forces, has entered into partnership with Mr. David E. Morrison, B.A. [A.]. They will practise under the style of Morris & Morrison at 123-4 Newgate Street, London, E.C.1, where they will be pleased to receive trade catalogues, etc.

Mr. ORRELL H. NUTTALL [L.], practising at 49 Oxford Road, Banbury, Oxon. (Banbury 2536), will be pleased to receive trade catalogues, etc., at that address.

Mr. G. R. STOUT [A.] has entered the Colonial Service and would be pleased to receive trade catalogues, etc., addressed to him at the Public Works Department, Lagos, Nigeria.

Mr. W. DENNIS TAYLOR [L.], on return from Ceylon, is now practising at Britannic House, Market Place, Long Eaton, Nottingham, and will be pleased to receive trade catalogues, etc., at that address.

Mr. W. WYLTON TODD [A.] has resumed practice at "Rivercourt," Upper Mall, Hammersmith, London, W.6 (Riverside 1462), and will be pleased to receive trade catalogues, etc., at that address.

CHANGES OF ADDRESS

Mr. PETER S. BARBARY, M.B.E. [S.], has removed to "Castle View," Marazion, Cornwall.

Mr. JOHN D. BROADBENT [A.] has removed from 82 West Wycombe Road, High Wycombe, to "Cobblers," Penn, Buckinghamshire (Penn 2202), where he will be pleased to receive trade catalogues, etc.

Mr. ARTHUR F. CARGILL [L.] has removed from Eastwood Park, Griffnock, Renfrewshire, to Weir Housing Corporation, Ltd., Calder Street, Coatbridge.

Mr. R. E. CARLICK [S.] has removed to Forge Cottage, Loose, near Maidstone, Kent.

Mr. W. G. CLARKE [L.], on completion of his duties with A.M.S.D. No. 7 Works Area, has removed from "Monksmead," near Runtun, to 54 Meadowbank Avenue, Nether Edge, Sheffield 7, Yorkshire.

MESSRS. DOUGLAS CRAWFORD & ELLIS [A./A.] have removed from 28 Newlands Avenue, Bishop Auckland, Co. Durham, to 10 Market Place, Bishop Auckland (Bishop Auckland 573).

Mr. DOUGLAS OWEN FEAST [S.] has removed to 8 Pathfield Road, Streatham Common, London, S.W.16.

Mr. EUGENE C. KENT [F.] has removed from Parkway Chambers, Welwyn Garden City, Herts, to 6 Gray's Inn Road, London, W.C.1, where he will be pleased to receive trade catalogues, etc. His new telephone number is Holborn 5060.

Mr. LAURENCE D. MARTYN [A.] has removed from 3 St. John's Wood Court, London, N.W.8, to 58 Fairways, Dyke Road, Brighton.

Mr. NIALL MONTGOMERY [A.] has removed from 3 Hawkins Street, D'Olier Street, Dublin, to 6 Merrion Square, Dublin (Dublin 62072).

Mr. ANTHONY L. PARSONS [A.] has removed to No. 91 Heavitree Road, Exeter, Devon, and will be pleased to receive trade catalogues, etc., at that address.

Mr. H. H. PARSONS [L.] has removed from Radnor Chambers, Folkestone, to First Floor, 102 Sandgate Road, Folkestone.

MESSRS. JAMES TOTT & Co. (partners: E. W. Smith [A.] and A. B. Allott [L.]) have removed from Moorgate Street, Rotherham, to Imperial Buildings, Corporation Street, Rotherham, where they will be pleased to receive trade catalogues, etc.

Mr. ALAN WOODS [S.], formerly at Durban, S. Africa, has returned to 43 Templar Road, Summertown, Oxford.

PRACTICES AND PARTNERSHIPS WANTED AND AVAILABLE

PARTNER (qualified) required with a view to eventual acquisition of established practice in City of London on retirement of principal. Large capital not essential.—Apply Box 310, c/o The Secretary, R.I.B.A.

WANTED. Young architect as partner to elderly architect in country practice, South Leicestershire district.—Apply Box 314, c/o The Secretary, R.I.B.A.

WANTED AND FOR SALE

FOR SALE. Theodolite (four-screw) and tripod by Dring & Fage, also Optical Square, all fitted with wooden packing. Offers over £15 or appointment to view to Gerard Mennell [A.], 2 Sutcliffe Close, London, N.W.1 (Speedwell 2666).

FOR SALE. 5 in. Theodolite (9½ in. telescope); makers Troughton & Sons; perfect condition, in case, and with tripod. £30; carefully packed and carriage paid.—Apply Box 311, c/o The Secretary, R.I.B.A.

WANTED. 1938 to 1940 copy of *Planning*, by E. & O. E.—Apply Box 313, c/o The Secretary, R.I.B.A.

ACCOMMODATION

LONDON OFFICE. Fellow, with well-lighted offices on fifth floor, approached in electric lift, in building on Victoria Embankment, would consider sharing offices with another member by sub-letting one room with use of outer office.—Apply Box 312, c/o The Secretary, R.I.B.A.

MEMBERS RELEASED FROM THE SERVICES, ETC.

The following members have notified the R.I.B.A. that they have been released from the Services and are resuming practice and would be pleased to receive trade catalogues, information sheets and other data, etc.:—

Mr. T. PHILIP ALLEN [A.] (late Lieut.), 20 Wellesley Court, Maida Vale, London, W.9.

Mr. A. V. BANKS [A.] (late Major R.E.), 46 Beachwood Avenue, Coulsdon, Surrey.

Mr. C. IVAN BEECROFT [A.] (late Capt. R.E.), 106 Muster's Road, West Bridgford, Nottingham.

Mr. DOUGLAS W. BETTS [A.], 2 St. Peter's Church Walk, Nottingham.

Mr. S. R. EDWARDS [L.] (late Captain R.E.), 6 Princess Square, Plymouth. Private address: "Ilston," Hoo Meavy, Yelverton.

Mr. E. LIONEL CROSBY [A.] (late Captain R.E.), 3 Dawson Street, Dublin (Dublin 7373).

Mr. J. W. A. CUBITT [A.], 28 Gloucester Place, London, W.1.

Mr. A. H. DAWES DINGLE [L.] (late Captain R.E.), 74 Ferryhill Road, Aberdeen.

Mr. C. E. D. GIBSON [A.], Bracken Hill, Wroughton, near Bristol.

Mr. S. P. A. HECHT [A.] has resumed work with Prof. A. E. Richardson, R.A. [F.], 31 Old Burlington Street, London, W.1, and would be pleased to receive trade catalogues, etc., at his private address, 307 Howard House, Dolphin Square, London, S.W.1.

Mr. JOHN S. HIRST [A.], 104 Rochampton Vale, London, S.W.15.

Mr. RONALD MILSTONE [A.], 82, Anson Road, London, N.W.2.

Mr. NORMAN B. MITCHELL, M.B.E. [S.], Martello, Park Drive, Wistaston, Crewe.

Mr. G. RAY [A.] (late Major), County Architect's Department, County Offices, Haverfordwest, Pembrokeshire.

Mr. EDWARD ROUGHLEY [L.], High Street, Prestatyn, North Wales (Prestatyn 450).

Mr. E. C. SANDON, Lord's Waste, Bredfield, Woodbridge, Suffolk (Charsfield 230).

Mr. S. W. J. SMITH (late Lieut.-Col. R.E.), "Yendens," Church Road, Chelsfield, Kent.

Mr. R. W. SUTTON [S.] (late Lieut. R.A.), "Presteign," 2 York Street, Norwich.

Mr. E. HAMILTON THOMPSON [A.], 3 West Meade, Charltonville, Manchester 21. No trade catalogues, etc., at that address.

Mr. R. B. WRAGG [A.] (late Major), 4 Clifford Road, Sheffield 11, Yorkshire.

"A.B.S."

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